

Johanna Rantoul = William Endicott William May Elizabeth Charles Nobet Henry 3 ex als William Enricott = annie Rand = Fredrice hourse (singlement) Chara(sie) /= albert Debruchy William = Helen Shaw (sied
Thomsike (ordoppeans) Fred hourse = Bessie hear #
Houry Boll = Warmeright = Elsie Runsell = Dorothy Quincy Charles Enviest (sied 1896) = Caroline Leach Olice Rantool (sie sping of) Charles (red 1902) Caroline Grace Estatiz Grace Endricott = William Kendall Evith Enviet = Gilbert hewberry he Millan Ellen Dyar antrew John Endrett Henry Enricht - hang thebland Home Carjustan Hamy jor Thomorken Laurence hucrion (Enjoyed to Dr. House) Henry Enricos fr = Catherine fears Ellen Bacon William

sister Robert Rantoul = Lovett

M. a. Reabody Jone Elijabeth Broodbury = Robert Rantonel, Gr. Johanna" Robert Samuel Rautine = Harrier Clear lotte heal (sie) Charles William Rautoul Evith margaret Robert Cugasturheal com Gibbons' heal Benerly Eachenhat Harries Charlotte Charles William Rantoul : anna Conory Wood (sied) Charles Wor Rantoul Jr. = Caroline Enticot' albert hord Rantoul = Estite Congo on Constance Endicatt (ried 1902) Ensicott Robert Rantal 20 allers Corro Jr. Robert Routone = 71 orance Authord Conjustis heal Routone = Charlotte Talkot-William Gibbons Rantol - Eleann Drive heal Rantoul = Long Saltons tall
Eleanor Josephine Etward Lambert = Lois Burnett by In. Clas. W. Rautonl' & hu. albert W. Rautonl.

Cambridge mass to Shelburne, N.H. 1911 June 30 We, M. + 9, wish the g A.M. train at the north Station reaching Torban N.A. at 5:20 Pm. just on time. The war a pleasant one The Wood Wapen, Yeuista line loria was in its glory, south of Salem, and the hills were one wan of golden yellow. Cis we left folem I faw in the barrey Construlus soil along the railroad toach a short way arransis out of the station Convolvulus arvenses running along on the ground for a mumber from the war in full (white) flower Begand Hortland, many laye field were entirely given up to the trange Haubbled Hierarian aurantiacum, a beautful sisplay but a curse to cultivation m. Ihm. McMillan were awarding is in the automobile at Jolean and we lood a slant they to the house where Ellen, Contred Tolur were ready to welcome us. The fame beautiful view surrounds The house and in the evening Jupiter bewes and the crescent Thom I being over the mountains in the western sky I be retired saily.

Shelburne, N. N. Colear colum, warm -We spent the day rather juietly as it has been pacte warm - I fast on the piasser a part of the time talking and enjoying the view - The usual birds are singing as before and I shall list them - His pleasant to bear from the have been at Javanne Spharrows. I found out last year from his leques Chale of Washington that the warrie Festica Fisture that from abuntaly in the field by the minimula house is Froming to, var. surindular (to .) Roch, accredito in the Manual to "Mis. cut la." So this Du. 9 collecter a member of specimens, as the plants are in yord sleafel wow and prosed them. This Ren Tur. thus bushellan & auto? to Torleam for the mail, and other crowds. Jame changes in the teams save last year make more room. The hall clock, Ell lead thous, rarins pictures, and a very large number of books are now in Cambrier, and the pianda piand is established in the Time blotters with the big press has been left ture from Philbrook Form and it is never a so

July 1

Shelburne, N. X. 1911 July 3 Clear, with some clouds, short rain storm with strong wind in the afternoon. Fiercely bot say. The mercury quieles reached 90° on the bock piassa and Aremained above that all vay. In the af-Fernow The same Thermometer repostered for a short The situation is on a tood plassa unter a IRecording fair locality. How 100° to day in Sorban- 1020) the staid in the house to day taking a run in the late afternoon in the auto & Sorham . We all went except m. The heat has been intende and we were just happy to six in the bruse and read write in talk. This morning I lite some 4x5 pictures of John & Centred with the Carey emoiden telebooks. pallescens to. " mirabilis dewey, var. tructor Formald. Dry, open field close to I west of the house These this splices are abuntant this evening we spent most of the time on the west prayer, enjoying the evening cool and talking and watering The ofkiels Venus sauk believe hix. Hoyes, the woon is about 12 full and not for from Haguilant and approaching the waning fuglitie. The losh for relief from the least to-morno the 1/th of Jul-From the prayer the evening twice, each time within a space of 1/4 minute ? beard from the hot. Soans word the full sony of the Hermit, Swams is of Wilson's Hurshes in succession

The Slorious Fourth! 1911 July 4 a fiercely hat day, 97° on the back piaggs all the afternoon, well out of the sun. Co ordp in the evening -70-Tay lear been remarkably but and we have kept very quet. This morning's Foston Herald that comes at noon calls yesterday are unprecedent by in Soften the official record running up to 102°. the staid about the bours all day with the exception of two runs in the outs to Gorleam about 12.30 P.lu, his Ensest, hu. Hun. Clearles Mautoul and Enricot Dive over from Vielbrooks and we had a platant summe. Eller bad painted pictures for each plate, a figure of a lody, each different, very well one and showing much originality. The afternoon was Spent on the pierra. This evening the extreme heat went out q wol breeze sprang up and from the pearsta we enjoyed the mon with pupiler close by it, and benus with its near neighbor, Kegalas setting over Hayes. On occasional welket or Kowan candle rose in the distance and from Forbana appeared a frie-balloon as daugerous asterminal a proceeding as could be one. hus. Mehillan & ofter supper examined the Euphorbia Cife. Enflortion in the field below the house. He is part fruit, having fruits Cyparianies unt abutants as hus hichis specimens of last June 24 show and in training out its rigorus later shoots, The plant bas a very string hold here -

Shelburne, N. H. July 5 another stinger. Clear, calm, mercury reached here in the piarra go. The weather has been too hot to allow as to so any their but keep quet and we can be grateful that we have Such a lovely spot, with its broad open piarra which catchel all the breeze there is. The morning paper says that Boston has beaten her record, yesterry The 4th showing an official record of 103.5%! Paucium boreale Mash, and collecter ("Think agus due cott (1919) Euplistia Oparissias D. Stellium The Toplan d'ile Sicher. Fine the laye patelies in the open field worthwest of the clump of trees by while is the eating. Forms to show young spread. ing plants and old plants part fourting. The laye paleter, run out orber from the fine of June tribe to the Emertan cottage and got Ellen and Current who spent last night there. On the way sown a little part Kattle Kiver we saw the smake of a fire of the railroad truck. We left the can (hin thin hich. & 9) crossed the pastare and with the aid of some wen who appeared late put not a runing fire on the class bank & the trock. Such fires left unlocked are the beginning seeins trouble - we later outs'd to Torbacon Evening on the prayera - Tapita + Luca fine & pretty close. hems + Regular very close, in the west -

Envisot Farm. Shelburne, U.A. 1911 Festuce ovina h., var devriuscula (h.) Koch. July 5 Photographed by me in the field west of The house close to volume I made the collections July 1, 1911.

Shelburne, N. A. Hot morning , 95; followed shortly after worn July 6 by a very been tunder storm with gale. Mercuy displand to 77°. (Cloudy Her with rain in evening. This morning we speat pricety on account of the head, talking and reading and writing. Clouds began to gather about 12 o'clock Heavy and ere long we could see that a heavy storm thusey tom word breaking in Torban and over the big range It promelly came west, Thurse and Cifelaning followed, a leavy was spring up and soon a scene followed. The yours in the field went of the book had been cut a confile of Days before and it was all coelled - ite work look Those cooks as if they were sheetof paper and they key went rolling over the field and flying through the air in a remarkable warmer. Then came Corrently of race, wherling + beating against the windows till the storm passed and the an was cooled -I read dies Ru. Fother and Son. about 5.30 hu. Hus. mehr. T 9 autoid to lepper Sorban where we waiter about tell an bour for the Train. At less four beeins were singing exqui-Setes on either like of us as we waited. This Wardwell came on the trang from brussen, The is to leade Ellan + Centres for a couple of munited. He span have in just 15 monates. The sat in the protter in the evening talking and watching the lightning playing in the west - I wrote to on to m. Two. Soft in regard to lively was Some Circlepias variegato to be sent we yesterly from form

Borton Herald 7 of 7 1911 Fritay -

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HOU	RI.	$Y \vdash$	IF A	TR	FC	ORD (OTT.	PPTY :	Y Y			
704	* ****	. 7	. 4	TALK.	برسا	OKD (ノト	11	iŁ.	WE	EK.	
1: 1-7		~	7 4	U -	-0							
	Sun.	Mon.	Tues.	Wed. T	hurs.			~				
1:00 A. M	72	81	78	82	80	(1:00 P. I	14	Sun.	Blon, J		Ved. T	
2:00 A. M	71	79	77	81	80				100	102	95	99
3:00 A. M	71	78	76	78	80	2:00 P. I		94	102	104	92	100
4:00 A. M	71	78	75	77	80	3:00 P. I		96	101	100	91	101
5:00 A. M	72	78	. 74			4:00 P. N		95	99	97	90	99
6:00 A. M.	72			76	79	5:00 P. N	٧I IV	95	97	96	94	97
		79	76	78	80	6:00 P. I	VTTV	94	- 95	95		
7:00 A. M		82	81	80	82	7:00 P. N	VT.	92			92	95
8:00 A. M	76	84	84	83	86	8:00 P. N			92	. 91	90	74
9:00 A. M	78	88	90	88	90			90	. 87	88	88	78
10:00 A. M	84	93	94	92	93	9:00 P. M	1	87 .	85	86	87	76
11:00 A. M.	88	95	98	95		10:00 P. N	a	84	83	85	85	
Noon.	91	97			95	11:00 P. M	1	88	80	84	84	
	91	97	100	91	98	Midnight		82	78	82	83	- 1
									30	04	03	- 1

Shellowne N.H. 1911 Clear, cool in sleede, a little warm in July / Sun, wering very cool, Day calms 70° at 1 Ru. - 58° at 9.45 P.lu. a most refreshing chance has tatten place in the weather on we are as cool as possible. This morning has been than & I walked wer to the patture opposite the Rix line. 9 pot Kora callier L. Paricing boroale has temerrane wile horostorie Cope, implication Series Open promotory, Sandy, Samp will. Topen class, ON. 19, 1911) Futher and I'm and am much interested. This Keler : we auto'd to Philbroke Farm to call on trus, Rantine. as we were specining along from the have Bob bolite and were between Rattle River and John Wilsnis. we started up from the middle of the road two quail. They started up and flew into the way with by the road. The was very close it us and I had good views of them. They fled find and we raised the fractices on in head is to fled. In behillen saw them as well as 9 ord, This is a west important woll -Tuis d'en. I core some sunge (421) un te bray field. The material moting astrony on a spend of astrony as training as training. The spent the war on a wall on the pragga. Cold Drove us in

Shelburne, N. A. Chig 11 Under this out hurs. Encluillan unites: Quail. Cinf 24 "I met John Wilson this morning - he saw The guard a selont lime - There were five young about the sixe of robins' out his In, David, saw them up in the posture after that," 1911 Cure this sale hus be hillan writers: Sept 9 John Wilson was rather indefinite about Their (quail) but after being talked it over with David - David Thought it was duguest 21 that he saw Then in the upper part of their pasture (in front of their leave). John Obelson limself her seen them a few days The record is as follows: -1911, Helburne, N.H. July 7 - 1000 Lucil seen & hu. Hus. S. N. Mchellan V me, very near, in The wittle of the road near John Wilton's, between his +Ely Sveenis brusses. We can sutteny afour them in the autorobale. They flew Though the bies of the road July 8 , Two Quail of three young seem by John Wilson was same place as July 7 7-40, 10, July - in few days after the JE. Two Lucil and five young seen by John Welson. August - about the 21st. Two Queel seen in upper point of Wilson posture in front of the leave by John Wilson's Sm. David.

1911 July 8

Clear cool glorius 52y - 64° at 8.15 A.a... 85° at 4 P. In.

This maning The Mchillan of auto'd to Tolum. I met he Limpson who was just returning from the fire. The large area was fundamy but her simpson said he had no wen up there and they had the saturation in control Vin said that the fire was started by light-ring on the 6th. I also met Brainer Pour back whem I used & play with in 1866, He told me that the White Pine by the Triste over hill Brook was cut som about 6 years ago by hu. Hawlin who gived the land gut beyond the tree. My water color of his Earrest of the old worden bridge them the Dine and also the Cause Sirch. Mr. Surbank told we about the old hint hill and Cali the few hill that stood there, a freshet destroyed the will - The site is stell risible. I met hus Rantone, hus Endecott & Mis Bourn in Enlan

The worken singing color bird I brught in Sorbers for Mrs. Suricotts birthong to-morrow, and later but Hun. Mehn, min Wantvell & auto d again to gorden - I got my pictures taken yesterday.

Clearlie Batchelsee who sent me a very mie Celter from Reterboro.

Festica elation L. Rootside Lity; miles Sorban.

Stelburne, N. H. Suntay -Clear with some leagl, warm in sun 89° at won. 85° at 5.30 P.la. 10-02 has been spent quietly in the shere mains of the priarga. I have read considerably in 'tather and Son'. Last might I killed a marse in one known sens room. It was 6 in. Long, the body 3, and Tail theree, color state above, quite white Jine. T. Botheldon below, including the lust of the feet, ears very large. I have put it in alcohol and sent an acet. to C. T. Batchelder. I saw loog in the barn a headed house, microlis peny would ocad. The auto'd to Surban dis Phr. 10-day in hom mchillain buttony. Cit breakfast, when she appeared, resting on ber chair was a large oil pointing in fold frame of Ellen made some years ago by Drin Charlotte Dience sister. In the Millan has brughed it lately H is a full length pulvaid, the figure setting and holding an open both, We are all very much pleased with it. Right such as we use at home There were other gifts. hus Routoul & 9 yestern in Torham get each a quant hus R's was a Unopecker that evening and pleked - hime was a curious ereature about while I wrote and read the following:

Stellourne, N.X. To him helicillar on ber birthray. The bird speaks -On this they happy natal day I come to thee as a surprise. You hard oreaned that in your town a bird so strange and curious flies In new to receive, new to you. In bird like we was ever known. I came to life juite recently (le this your farm; see how I've from. I wisely stand and way my head to Clost one toe not long ago Coud tail and body to and fro. The striped less and striped toes the too black and eyes so blue Blue-spotter wing, 3-forked tail Divelain the worder through and through hy brood flat bill lines ned and black that I have said before shows science smething new to crack Sine bird not burns on any love.

1911

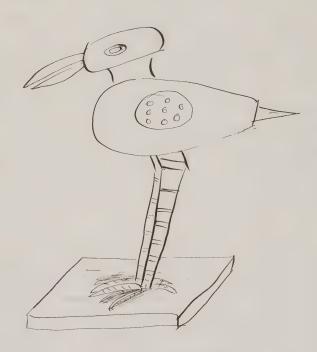
(2)

Stelburne N.H.

1911 July 9 (3)

Let me always live, 9 prær ym, hear to you, your patrin faint, hefarhynelis candaculus call me wer, true if quaint.

This means that I a speak tail have a bill that is so very big. I bow before they years so few, the will you or were with me a jig!



Stulburne, N.X. -Trip to Bretton Woods 1911 Tuly 10 Rather leage, hot, calm, 97° on the pickta (1)at home being To say has been a splenoid trip to Svettin Woods and while the day was hat the motion of the wire in the cuto. mybile more it very bearable. Then. I has. memilian & 9 started from the learne and we picked up Judge Evans in Johan. The trip rund the org municacion was very lovely. The views are so underful all The way - We climbed Gorham Hill, and just us we seen near Jefferson Highlands we swing of will refleson Meatins and spire built the at last reached the valley of the Commonosal Niver at the Tom Int trute - We then followed the stream up for Fabrais to the ht. Readent Lung to the left on the river us trood intervale and stopped for in his time since ceasing Torlean at The winderful Tat thashing ton Hotel. It was The occasion of the official opining and there were to be home coreslifter inspecting the building write to by time swimming tand, to pe we assembled with a me an ine amiles they in the frat sing the will have a book

Injo to Southon Woods. Shellarne, MH. July 10 of men who will partol the trails and Surrouting country Turing the Leader to morand fries beef paths clear and the alle Comm we I off and finally there were special from governa Bass, the governor Hayd, Luculy and forton after where the hotel was amorned officially open. I was withoduced to the above Tovernor ycefling for. Lumby and I less a very pleasant talk with Gaps and Hoyd. lifter this we had a most excellent bench Elvans & I wont into a taye recen called the Jovernord Loom. The walls are completed leavy with pretures of head Haupstines Toverword from mo Tordan at its beginning in 1903, and bas been signature of for benante to a social a Colonel in the Myriaciman War-There a preture of Evertan want in england, the home of wor. Wewwith . Thetta Word was cry oney the wome lighter is and at the time of the (pen; of the hour the vame Eretting Wood was revived and applied to the community in that refin a H is all in the cour of Carroll.

- Trip to Bretten boost. - Shelburne. N.X. the returne about 3 orchock the fame July 10 Every, water, The trip in a little short two lours both times. The oustawns from here to the his Nashaytin in later of the find sugar at the Hotels The frent fires a Int. Surprise that Fire a starter I we z ing ago mude such a show has Jupine about I rever that we went to Torban in the wismibile and took the flew 12000 full begand Ribby's Mells where we that a wonderful the of the configuration - The free love reached the Cot of furthere, while is a tour of Moreone. Followately the prote is sparse on the with summer, out conservation Suffers I me all the files and This me challet Com the Carek tell the raino Come-While we work worker, The full mon core divety behind the undersin top, a house land ball with the flames and block trucke planing over it hurface It was a very remarkable de 12. We were fore from the hours what a how. I might wenter out The Irrinary in their sund species all dweld upon the life tenorgy. beganin till bis desta last spring. The John Wilson told The Metallan yesteria, Quael That in the late flerion of the day before, July 6, be four were his board this

I williame, S. H in a perfect wind man. He tros is fue, 10 an old resident of Shelburne. He saw the buts beliveen his house and Ely Tremie's (always called by Ween) at the same oft as near as could be made and where we said the two old birds on July 1. The country is sparses inhabited, words and field bordering the rood - This can firmation of what we taw is most Sinterering John Wilson never faut Lucel with refrin before and be has been tiere for many years.

9. has allen in time Birds gleen Hampsteine 1705, record its west, in writing h.N. He fays, " a rather rare permanent resident of the vandelin valleys of forther here Hampshire" "Faring the summer of 1899, I als valley at Intervale, dany a st is injuly impostable that is was other Than (un into suce of pleamer would regime I know I wome being been ole. Herrer in the breakty before a fine! This is the only reference to the occurrence of the bird in weeken herd Hampsteine,

Stillburne, SA 1911 Currie clear text by werning reading to. July 1/ While we are confortable on the pratta it is to warm to move about in the fun , and so we are puche con-Cent to remain quiet and read and tail. So the day bus been uneventful. During the afternoon the fil on furpose that is seems to incress Till The appearance was take that of a volcano write vially enotee puring out of it. We autod in the late ther. as wheal to Toclean for it was and there we had a view of the fires from much nearer at board! Olain is well their was to stop the ingles rate a "It is a terrible flesh to set tour destruction that in lan cale was the copper. The municin With a all rocky with steep tedger and delp testes and the men who Lave up cont conal the fire.

If initial estata Some Thise.

Father and one: It is a west inelection? Ith and some work regular very west weather with the own to the misiater - vicini to her card On my to son surround in in the Popular it was now in the Com s The grove begand in the Buches! Entreus from 31 Starten It.

Theoreas satura L. Esse of Fark Promenade, by The busse.

Shelburne, N, H, blear, cool, with fresh breeze. 72/2 at won. Jul, 13 The change in temperature is most refreshing. The wind bas keft The surke of the fires on moriale away. This morning him. The willaw and I walked up into the woods on hit. Evans. The had a real good time and went some way up the slope. The majuration Warbler with his peculiar Ing was there, and a Swainfais thrush quite was us say incessouth I have hever heard this thrush swig so long so wear, It was a treat. I colleder a few plants - Home to ormer. This afternoon I walked with her. We Willow up, scattle Kiver to the end of the piping that supplies the house. He is adding some more pefre and heart Rix this nepbed were working there I found Carex scathata Selwein by the river and, in a west place near by, in a builted on to near the so-called Friel Gard and both Lowe. Later we auto'd to Sorlien for the mail. I had a very nice Cetter this morning from De Clealer Linder of Lawrance. First. Evening partly on the placera, where it was los cool. Paricum boreale hash. Dy chary border of wross on { con 19.1911. Carego tribuloises Wablands, , rac. reducter & oiley) " tenella fehlruler. moist woods on hut. Evans. July 12 - Tuercago satira & Bank men the house, Lesh femens.

Shelberne, N, X, 1911 July 14 Clear pleasant breeze, mercung about 810 at the leathest time. Mind west as it has been most of our visit. This morning we were much of the time in the piazza. hu. thus. Clearles Mauloul & Entreot called this morning on their way to Torben, where bu. R. + Entreste Take the train for Oswego, My, to go orm the St. Law. rence to Cinticosti - Mrs. K. returned here and Stand to oriner and went of the Volu Coller out the sole of her foot on a wail while botting today and is on the bed This morning I spent some time in lathery pleastors of Ellen partrait, Ellen Curren, bu then we willan. 9 left the film at Slearey dis the We look Mus. Routal bock bome and Then went to lipper gorban + Tochem. From Gorban we ends see the progress that the fire has made on the bioriale range - It is stell burning and the area covered is want laye. The west wind has Reft the air clear here. The go boel to Combing to morning collected packed and in the truth.
I head a House bren this Plu- of John Hear; House bren 1911 July 15

Sun hight and rather worm to day. This morning we left the house at 8 A.Ca. and the thur we willen. another, TI acato'd to Shelburne station where we took the 8,30 train reaching Soften at 3.30 P, an aking no stop in Portland - We took a bountiful lunch with us. Os the brain left Lookes mills we passed a steadlow muddy frond covered with hympolace minoplytta Wers. track in abusture infolium procembers h I read with much interest How Valuand came to Portiae' 4 9. Railer, Cent me by hus. Mi hullow and finished at this evening. We came out from the bouth Station of East Cambridge and we were extensished to see box the elevater rood their properised We file the good people at 31 well and bappy they have stood the heat ex Franch well. Me time the with them this evening and recounter that burne flories -

9 collected and brought with me
Ranicum 12 sheets
Festuca el. 5 ...
(6/ sheets Carey 17 ...
Misc 7

Shelburne N. H. Last of birds, all of Shelburne, when otherwise notes. July 15 1 Great Blue Heron 4 seen from pierza. 2 Bob White 7 road between Rattle River & John Wilson's See Journ. 3 march Claube 6 ? 4 Black-billed Cuckos 3' 10 at my l 5. Kingfisher 11 over front lawn. 6 Swift 30 1246 72 a3 83 Gorham 1 Down Wood pecker 10' 8 Flicker 17 9 Kingbird 3 4 5 6 10 Exetten Corns 12 143 (row 30" 16 2" 32 42 5" 6" 7 @ 6 8 Le g 10" 12 13 12 14 20,5" 12 Bobolink 10 Jefferson meddrus 13 Purple Fuel Por 2 inassauty on the place daily 14 Horse or English Sparen 6 a 12 seen in Golam on the 1th, 5th 7th 8th. 15 159 . There are probably a sogen about Shalburne Station as lost year 15 16 Gold Finch 1'3' 4" 5" 6" 7" 8" 9" 10' 11" 13" 14" 16 17 Vesper Sparrod 4" 52 62" 7" 102" 11" 12" 15" 17 18 Savanna Sparrow * at interests in the field by the lune from 30 10 19 White-throated Sparra 5" 19 20 Chipping Sparra from 1 to 4 almost sing from 30t 15-15th. 20 21 Field Sparra 302 11ami 23. 30. 42. 50. 62. 73. 80. 90. 103. 120.151 21 22 Junes 5'8'10' 22 23 Jong Sparra 30" 3" 4" 10" Bretta 13' 23 24 : Indigo Centing 6 mo of the Poplars' 7 opp. Riv House 11 Poplars 12 14'
24 25 Eave Swallow 2' 8 6 Solam 10 Golden to Mother work. 25 & Barn Swallar about 6 on the place daily 10 Swellow to 26 & 7, Bank Swallow 2, 5Ta. 27 x8 Cedar Bird 10' men the large

1911 June 30 Ked-eyed bres 1 or 2 surging saily, heard from piaxxa. myrtle Warbler 13' woods offer the boin maquolee " Chestunt-sided " 2"5" 6' 7' words book of barn in cocin case Ovenbers maryland gellow Throat ! House Chren 8 " Lilly & Sons Companion 14" at 7 du theis. Chickaber 7' Very 1 kd raily in 'The Birches' The laye clump of wors u. o. of buse. 1 12 the frequently elsewhere in wross near the bonce. On the 6th 4 were ward in full sag in Upper Gorham -

37 Swainsn's Thrush I'm word 5. of large on slope of the Evans on The 2°, 3°, 5th, 7th, 9th, 18th, 11th, 12th, 18th, 14th, 15th. The songs were probably made by two birds in two rifferent localities, though

We never beard the two singing at once.

38 Hermit Thrush 2" wood on Evans 32 4730,10, 5" Evans on 14" bound 15" 200

39 Robin 166 saily Blue Bird 3, Solum 820

> Last year suring this same period ? ob. served 45 species. The extreme hat weather during this deason keft as much at home and much Cess observation was I sue-

Canal Love Remainer april 17-21 List of plants collected Opice 17-21/911
(1) by how 9. I Mcheillan,

(and identified by my units the unvaluable help of Dr. 8. h. Verbinson at

The may Herborium July 18-21, 1911. 1 Gymnogramme calomelanos Raul ghil 27/ Hob. Mexico. So. Cemen. Cefr. & Holymesia

2 Cenchrus, multiflorus Freshigalboa Chiel 17
Febro Miguel, Cefril 20

Hah. S. Mex. on the Racific coast.

3 Paspolum paniculatum L.

Balbon. Cefril 17. 4 Vielotie insulario (&) Charl. Salbra (the is) Selboer, Upril 17 25 Coppens freex Michael ? Kerso Miguel, Cefril 20 36 Cilternanthera sessicios Rebt. Brun Hab. Comm trip. S. Come. Fortheremeter, it is likely to occur. -> Bailoca, april 17 Cutebra Cut Whil 19 Hab. S. Mexico, Panama. Comman in W. 7, o e. S. Camer. > 8 Touther publica may. linear lipil 20 Hala S. Mex. Parama, Deru,

Canal Jove, Ranama. 1911 9. Portulaca oleracea Lo. Tatur Cefer. 21 Wpril 17-21. Hob. next. of Eu. Wisely ristributed in tropical and subtropical regimes, both in the old world and Course 10 Clitoria glycinoides DC. his abloves april 20 miraflores april 20 Hale. Kanama, W. P. V Trop. S. Com. Fatin Cefrie 21

Hob. Vicaraqua Renama (Chagres). W. ?, Colombia.

to Guiava & Brozil, w. trop. Cefr.

12 Des morrism inca um De Culebre Cut, Copil 19

Hal. Com. in W.7. + 2. Trop. Cum, also in trop

Cofr. of Mannitus. Micaraqua, Costakia, Panama.

13 Vigna vexillata Benth.

huiraflores Upril 20

Hale. Mexics. 9 natemala, Micaraqua. Panama.

Comm. in trop. Cumer + tropias of old n. n. le.

~ 15 Cemphorbia rubrosperma Lotsey.

Spesimen

16 Sira Spinosa D.

G. Chil 21 Left

Sira Spinosa D.

G. Chil Fatur. Ofil 21
Hob. Cemerica, Reun. to Buntevideo, W. 7, S.

My, Janama - Topics.

17 Cuphea near microutta HBR. too fragmentary

Gattur. Cepril 21 18 asolepias curassavica L Hab. Comm. in May. & Centr. Cimer. & ready all warm countries. Ha., Louisiana.

Cleval Lone, Ranama 1911 1 april 17-21" I pomua botatas Lam (Swest Potato) Culebra Cut. april 19 Splainer in They Ho, Jatur. Get. 1. 59 Origin of species authorin. 20 Spomaca o Thyella spr. a single specimen in Gray Her Label reads "Plantae Venezuelanae. no. 944. Hope colonian Tovar light a. Fendler, 1854-5. wear Guigue" (an La the ? in pence) probably b. Howe is written "Thyellor sp" There' is us spleeger nane Culebra Cux. april 19 21 Heliotropeun intraum do Hele htrown in am. p. old brold (C. Easy); hirjerum in am. (Prizebach) 22 - Johann Fentlere van Hende & Mill Talen, Cefrel 21 Hole. Vanama (Chapres, Feb., Man. 1850, Ce Fen-Her, no. 254) A23 Stechum browner Juss. Hab. Mexico, Suatemala, Horizoras, Panama. S. a Ecuation + Ir. J. 24 Thomortica charanter to Gatur. Cepil 21. Culebra Cut " 19 ic to to to Hero hijue .. 20 Hab. Commen from mexico be Stayii 214 Johnan laia Cep tocarloa &C. Hab. Pavama, wear the city of Pavama Comm. Two. Cofred Java.

Canal Tone, Ranama 1911/25 apre 7-21 Eclipter alber (2.) Harris. Jatun, Cipris 21 26 Eufoutorium microstana Casa Culibra Cut, Cifuel 19 Hair. W. & s. heex. Head as, being and . Citardia. 27 Induntodien disaricatum (Rich.) Etc. Specimen Balboa (spil) Eft. Hab. n.75 heep., Factorder, himman Parama (Enfin tailing statum).

28 melantherer aspera (facq.) I tend

C. labora C & Calain 19 Culebra Cut Cefril 19 Hale S. heex., Suatemaky, Micaragua, Costa Picce, Havena. W. J., I n. part of S. amer. 29 Thirax procumbers &. Cinem Cipul 20 Hale u. + S. Mex., Yucaian Yauteman, hicarapra Vanama, and wall about the city of & anama, (S. Hayes, 692), upt of S. Cewer. + 119. naturalizer a Intea " mauntis. Worce-for waf formeth Cicle too lut, Chief 14 Ricked close to the ground -Numbers checked were presented is to Tray Herbarium, February 28,1712.

Bog Weelk, Rio Ceobre near Kungston Jamaica.
1911 Cyril 17-21 Lest of plants coitertes 1, hun 7. N me millan (5) Office 15,19/1 and identified by me with the ones from Panama, wite Dr. S. K. Kobiusais and at The Way Heiler July 18 -21, 1911, Vilcairnia bromcliaefolia L'Her. Hab, Jamaica, Cuba to benezuela Dougaenvillaca Sps-Kengston Able. a half orgen or more spor of S. Cemer stereti. Hitely sulvodiced with wome countries Clutrosewa rinjuianus Sente Hale. Soleovas, Jamaia, Centiqua, Doninica, St. Lucia, terfinia, Cela. Ha. Throughout Trop Cluer to This naute do Lale riger Tribulus custocres L. Kugston Hale famaica - Trop seashour of all countries 5 Lautana Camara R. Hate. Januia, common; Dominia, It. Vancent. 'vinisad, Cuba they. to Suens legres 6 Cantava involventa L. Hale, Solang Jamaica, Cuba to Suada-Coupe - Kanama -7 Lady Tarplicea famaicencia V. How Saleanas, Jamaica, Centifua, S. Vincent, Traison, Cuba to Bragil. West in Cefr. & Carin. Spermacore tennior Lan. Hab. Jamaica, a weed, Cartigua, Trinisa, Cabathey. to Brazil Herry. Dette & Cencanthus W. Heb. Jamaica (all collectors), a common weed; Centiqua, Trintod, markingston Ha., Cuba, Mey. to Brazil + Chili, Pac Ists to trop Custralia. Wen Lealand & E. T., modeina. w. Cofn & Cape. St. Centred

Ranawa, and Kingston, Tunsier 1911 Kanamer plants by orders no. of Species-Volyposicceae 7 vamineal Meraceal unavaulaceal I stulacaceae Legumenotal Celephorbiaceal Malvaceal ythraceal it clesiadaceal onvolvulaceal Toraquellal Jolanaceae Cumbitaceas Compositee Total 29 Manthaceal Rugston Jamaica plants Bromeleaceal hyctofinaceal Leguminosal Typophyllaceal Kubiaceal Total 9 Composital Grand total 38 sps. There are two work species too fragmentary to place at all-

Junaica, and Kingston, Jamaira. 1911 The works of importance used in determine there plants are: apr. 15-21 Fina of the British West Intian Islands. a. H. R. Erisevach - honon - 1864. Giologia Centrali- Cemericana by Botany by W. B. Hundley Vois. 1, 11, 111, how on, 1877-1888, large 800.

1911 Cuy. 30

Cool cloudy worst of the day, the seen breaking out and sliving brighty for an bour or more in Pla. m. & 9 took the 10.26 A.M., via Salem, for marblebead, arriving there at 11.0%. The were to tunche with This Store Sheffield & Mrs. Esw. longuan. Mrs. Sheffeld met is at the station and we Tore in ration an antique - tooking reliecte to the kend fountain him where our friends are Staying. Mrs. byway welcomed us. The how is silvates orrectly on the Harbor and guile a begint above the water. The peartya out 200 Jarour give un interrupted views over the cutal Harbor. Ht is very beautiful wheel. The waring rotte with boals of every resempin any at aucles and many spenning about. we for som startes of and walker to The fewers we to ruse. The post ears give an ide of the house writing and writing. His a spleased relie of Colonial Jays, "This building by eremiale Lee, one of the committee of Sefety in 1708, The muterial being brought from in land. He wied we only seven years are in from the effects from the British cipie 19, 1775, dying in newbury port may 10, 1775. Chief police Lewall purchased it from The estate of Jeremial Lee and bold it in 1804 to The Marblehead Sauth. The Historical Society vouget I for The madelad haternal San's July 2, 190%.

1911 Cup.30 (2)

The ball in the center of the bouse is of may reficent proportions running the whole leafth of The base and being 15 ft., 10 in in with disk, On The right a handsime staircase runs up on a very gradual slope, the stairs being 6 ft. 11 in wide. The large banquet hall on the left font of the from flor retains its bear panelling and und cornings and in 25 fx. 6 in. long, 20 ft. 8 in wise and 10 fx. 8/2 in high. The proportions are fine The Carge Kelchen in the book has an eusmones brief fireplace that I measured left wide. I slepped in and could see the sky through the Climmer top. The back contains a Tays member of rooms, a few bein furnished with old furniture as apter to the period, there being us original functure in the work when the Historical society porchase I. Thuck y to original worl paper amucin in the raisings. but on the grown flow of the ball a very Small piece remained. This is framed and um up, would the uses re repapered with of profes se or a real to organish. ile velain three stories and a grand and y which we want to a. We wen ascenter to the supple on top mel wort a feet or ford it is the have and we put it choid in her rist. On lingust 19.1901, we visite the Old Town Hall and IX - michaels Climele -

1911 Cup. 30 (3)

We then returned to buch in a very pleasant bod Studded woon w resemble a slips cabin. Then we visited the prazzas of sun parlos and roof farter most altractive sports, commanding beautiful views over the bay. calle we went on board the ferry and both two circuits, enjoying the posts breeze and sun and blue waen and the many books and the pretty buses as the shore. were trus buffield, he & I Took a walk through a porten of the old town with its grant, narrow winding clouds, little old-fashioned wany of Tiem lip- rosped houses, or speed som any wiere, with small attractive gardens canech! with them, some containing but a flw square feet. The flower were in splensis confiline as been lobe the case in the seat est - Vablear, Hely, Heriantins munis were inspected alust every arder hat in abuntance of focula Seoparia wells , thenh very attractive both in its green and to crimson state. I saw a fine the see of Volygonium curpitation covered with We visile about Hall and faw the original painting of Yanker Dooble, The Spirit of 16 Returning to the mu, after a short rest, we have This logues good byl, and write him Sheffield walked back withe

Romin Soparia (b.) School Rousine in old town, haveled.

Statem (1/2-1/4 m) where we with 5:35 train, in Salem,

1911
(my.30 In the large barquet hall are leanging (4) in the see Howe lus photographs, one of Jeremials see and one of him wife (most one in written—"Jeremials here of marblebeard. Some Capiel 1721: view hay 16, 1775: member of the Provincial Congress of Mass. of Fib. 1, 1775, and of the Committee of Gafety— From painting by John Singleton Copley, 1769"

Under the Second one is written—
"Martles (Swett) her, wife of Jeremials her of Marblebeard" It also states that it is from a pointing by John Singleton Copley.

These lass ony wal oil pointing are at the Boston Cirt Museum—

1911 Sqx.2

Month Station to spead a couple of ones with Roland i Cast les of family- the day was higher with the family- the day was higher and there saw straining beautifully. We reached Bottumb at 12.20 and their wanted there a half home. At Ritter found the clockrie can was law and them broke orm, so that we found when we wanted Sea froint Station that holand took home wanting some time for us. He walked top the wanting some time for us. He walked top the to the tenth about 2 Plan. Betty & Sommed were seen and we some were setting some to

The base the fame room as on for, 17-19, 1909 the one over the peaks. Every thing with as it sid before and we oid enjoy betting on the playbea and arinking in the wind formed for the world resident the world visited to make the world visited to make their, and and man the world in a carpet when the item and I seein thus the way in my abundant. I have a spleased of pereinen of Cerolia raccument. We walked on to Harbor Hill and not sorom on a log at the read of the beats, and enjoyed the works and breezen

Jace voter of he is a a number of his of in appear and the inia suspectable grature in I the marker over the regetable grature in I the inner of varieties I will that: -

bisit to Kitter, fourt, Maine 1911 Common Raspberry, Schaffer Kuspberry, Black-Sept. 2 bery ? himbleberry, Currant, Grapes, Hair Tomatoes, Reach Comulões, Beets, String Beaus Lima Beans, Chard, Egg Plant, Marin Squark, Watermelon, Com, Peas, Lettue, asperages, Holatoes, mint, Cauliflower -The apple and Hear trees are a Eurys beature of the place. Trailing over other plants of the front years. I was to the e and the to us mader of a state of the second in in in . Their fitty fine will this of Wenon 17m a out of the 127 1 100 int I broad not we see Till to wound we and a ba T topped - 102 Inf contained you in sumperior thing is The capitables is always from from The place of a felicial the might sha sha and I were Cypes in a in the of the side able. We I I a will regard to a sed oil the second On The way here in the electories this Ala. as we prosed by the marker I saw a Herring Sull, and a Bingfisher flying and in me worth a west Blue Heran starting to like a stake of a brown color in the peculiar light that I at full wistook IT. It was a food instance of protective coloration Thus I bayler tarterent are in Severel

14/1 Sept - 3

lifter a some sleep we were up to a hearty 8 o'closer overlyses and a little cate lessant of Jorn to his orother folis to got the well and evenue Doland is always up very early and I found be an working in his farden before breakfast. He was triuming out the old caus from the raspberry busher lifter brokfait we took the electris in 3 ver, short orstance and Then walker over a tritie on to gerish Island, immerately cool und fresh und stree this long west weather the peesle, fungi was extreme, showsant and I was so intensive in getting int mation from Holand as to the remis kents. He was The like I approved in the light is at a supre + section in sunx. We faw fine Them so that I will westering Come - Une & stewart in was & - 12 of los. I will see he want to pare the octo for him former was in unwell - we forled hur femmen and ? 4. A mix Cally with her . He is a place comments a fine file of the ocean to the other to the the standard to th are The whom howing the a was and The sea of a foist season a I , i very chang in the very a live wall very

imp or hold thanks, thouse at 5 3/2 will lay and I enjoyed on the of to and feel jul- us & wall for This a most blest int a strast o- The part tooments us a matter of the I will ist what destry with the day out Treed: Bolelus americanus · Curious chrysuterm erelis Soletinus pictus Holypour of sung white I ussula emetica (anthorners cibarius Cymanita muscaria & Frosti decturing sps with Hypomycas lactifluorum and Lewaites sps Clavaria spr white yermsh Lycoperom & ps. We saw many word The names of which Ti un vecus to Roland -This fitzuon we set in the pierza, read and Talked and later I walked one is Lea Point Station and met he who came over from Park Field Hotel when the bod been to call upon the Blapps of Hilliamses who were there. Faler I well of This evening we led were "ypee' reading by (color in the Setting 200m-The smoon slines origitly of show and is in

1911

this morning and the wholes drag was as fine as yesterday, air fresh and cool -Holas I was quite busy this morning with I we work and I walked some in the word by myself and down to the 20 h) near the trush, overlooking the ocean, I coclected Elymins in rich words wit I for I briver confesses a very above and in the your east of The bone in fall flower. This was one to the long west weather. Exmund joined me on the rocks with his little friend, Jangber of try. Vicad who has taken a nearby cottage. The tooked up sea archain, tift by The took and I saw what I feel sure was a figure thank on a dead tree wear by Broot Highway and I must get it treat it - Sommet of I worked to beaton't the west selly the will. after Times Holand & I walked on the nogle early of the house to see the vain. There is a very brook seeing of the bosigon over the ocean a we tand the subble tylet. cone when Lys P. The Tyst with Voles of Shows - in the wow is the thorner 11 word Files we wish a was. The gummed a sew stants and inspected the Evanberry b de where blocand to be win en supple. Who I'd boxe goodby & to Tan John Theseled de care our in the morning

Kettery Point, he, to Canto & low Lept 4 over to Sea Point Station. Esmand, ind us there. We prode grotbye and tron the Electric cas betty accompanying us as face we Letter, Fout Sistem - I we we met Button I lapp whom I have not seen for some years. be took the train straight in Soften, (4.27-6.45 Phs) arriving at 7.07 owing bothe crowds of Labor Day - Our 7.20 train a Cam. bride was 1/4 he. late in starting - let Horter Statem I pleased fulleran to come for us or at I Plan we weather home safe of Sound if a crt tred I want for cupper. the crip can a intraceinful and only it is a in way way . We were of were I in at a la ac-I coilecter a few plants and with them home in my dress built case. He toth us trunk, Elynn riginieus Lo.
In rich soil in shart in wood back of house sting & Richism Leaves intraction of pett, r. . jungerina (3ch well) & Brison 1546 7. 1911 liber out in grass on right east of house. - tolidayo Rocky or a almost bushes just above the wells in the short and of the the a. a number of plants seen in a finall area Tolisigo raspera lut & J. Lemper vicious L. Phragmites communes Tru. Lever & plant in the evanberry by-The specimen 9 took was 7 ft. bigh.

Trip Wil they fount, maine. Sept 2-4 I observed the following birds at Roland Thayleis or writing confile of wiles of his place Barn Swallow 2 or 3 man the beach Chieleader 2 a 3 heard Ked-eyed traco heard whining Tolofende 2 n3 seen a heard. " Crow numerous - On the 3° are immence flook was berland over the woods where we we were wolking Flicker heard 2 a 3 Wond- Hewee heard 2 a 3 Right Hawly Saw one on the 3° flying Sifteen Haute. Ohis birt was perched on a rater low, dead tree on the slave east of the burk From his general pleasured I shape us he frew of when feel him write the of from the his can look be capt thank the Unerican lough leges Hown some so he destified this bird Tacting to Lea Point Station by bis large Fire, bis ty of color ind the warkedly whitish base of land - Sept. 3. (Doubtfel , W.B. Sept 1811) 11 Stown wings Hawly We saw this bird flying near the I book Howar endenes a swell Sutes - Sfx. 3 12 New stouldered Handy Two large Suless were soaring rather tow over a laye boun on Ferrish Island They might have been Ked-tailed Hawles - On He sive of hu. Eller Jennesins barn wear by were tooker his wings of a Ked-Shoulder I mumbed I by ing over the water of I thing on the webs 1911 Sept. 16

With the air clear and the sun bright M. TI orose to Porten Station and tish the 2.48 Pla. tran W Boston, leaving their with Will Breuster on the 3.30 train for Mounch Between Newbarn and Mysteria The word places ve yelled with items trulio vermas (her y) Gretton, more commany Queon as Coreoforis tri. En sporma huelp. Charlie Townsend when we were to visit was unable to Take our train. We reached Metwil at 4.25° and Rove to the countered House where the family all preter as contrally Classie arriving about on bur later Gertrute, Margaret. Frances + Elailes all were there as we approached powell in the trace we can ants fog and it was quelle Thick as we owne to The buil - aster novae-aulgiae L. and C. Palis w were in abuntant by The rost and may beau. Trees while the Canadian Gurnet Cauginsorber and in full slover. We have premish visited The cotonsend in Sprinch (aug. 27-31, 1403 and Sept. 10-12, 1904) and on there occasions I fully Seierbed the place. It was still just to poetly well . may be heavy for theto we in Truly room, worth wis cover we were were most confortable. The hard our said cases only is when we weath toland Thousand this weeks of on The brown of the white a terming in when I was a mile in a tape and of the

Ipsuice, muss. Therong wit joy, occasionary Term, up a with, Eveni, che -The fot of say was been unfortunate, but un vai a description time of the same. when transport ilearlie, will to started on The The ball cest in s. I had on on Il svem out. We los a nice walk with a 1000 in g the falt markles. We visited the The wender orace whate on the will at the Test of the vecus on me la. I was the owns are incurante tot of tand and comens where verying up pour tienty and the sain o une un leader epin une valla jes - ser a of it - We walked some distinct on the beach, but the for was no wies Herring Gues frew over, prearing in her is a visit of well of viets of seppearing again. in a sout bar that first out some ois. a bood of some two so ten seals that Charlie sous intestit that region. I could barely Justinguesa with my binoculars the orfferent some line on the west of a the for of brit cight at the cips and then for it was to the race begins on tour with there the prevaining out

I sserie, ollass 1,11 er aux (d., lenk, and Hut Donea litra it a mist south true & shrules with hour is breakly port here and there - I gathered a comple of Clitocy be Laullisata specimens of a brown gilled tootstool in the wo x. Selween the summer and the solt? wary believe there was a preat alow and of duiseur vigouein is its tall spreading paciles tooking very bandsona. We strolled The last sen alust as boits the jewill for In an easter storm. However we had a : sue tie tie , eterning a time for ourer. Coming the Hutdonia, It should intervals, in the Hors ma sand were cettle patibles of the jours write per lomentora sident chery that are reledient of the plant funt in sound The winds gutter there is to peteber forme 3 or 4 poetets in its ieros in tittle nollars in the tous were To main protecte to the prants. The sees butter ordelinged and ovubten we vega The fund bot falle old I with away one of note parton and an off aren't present-Clar week was comet for miles. after Time a a rest The party splet. I went over to de Joe L. Totales and callet on hum and his wife. Swotale stimed me his garten with boy healt and his rockery and after collers come on a professived visit. I ter turned terme and went were to Have Spelman's hote land is close to on Joronsen's tand. We saw all the family

Tpswice, Mars 1911 (3) expected to more tiese two calls with Chance Lapt. 17 and will, but by a unstake They reversed The order and we look each other firms of the afternoon. Harry boute bos a fine outlook over the marker and drawes. While we were Their Earn Eustis, Lawrence and Richard with fread acted in waters buts from marrieron. We spent the evening pleasantly by the fire talking -The stars were brilliant this evening the air cold, and migrating birds were Curpin overless. hugaret less a very beary boy fiver color I might mention that the space between C The rows of vives in Goodale's viveyard where armish there were no trees as was the care at the cuts in vineyard of some sows, was matter with Birt beed, Convolvulus arrensis is. Evoluter bay that this in the case in the yord foreign vineyarts. West explain attacks the plant I count Je-Current interest that Sovoale is following up is the mosquitois of which there art a last mumber of species in Apswich. He collects wyflers and bateless them The one of the solt mursless that I was shown and where bute I felt in Culy sollicitans -

Hetern to tan vidy Just. mass.

Colony clearing by 11 A.m. Charlie and will left this morning 5 7.30 he the 8.02 train. In 19 look the 11.49 Alar. That use we good time to call on soobale with whom I be made the arrangement last evening to see (is vingal and the method of making vine. I went som to his home by 8.30 and stand all 10,15 and was astruished at his work . He bar about there was of river, each riv I flevild Lay 200 to 250 ft. long of unumerable Kinds, every Riv cutaloguer. The we a bearing in every stake of about was not we was crestartly sample the different Buts. Too take explained the methods of grafting budding, triuming, & praying, Ly ru cie, etc. Que vine repend 15 that for the desan. That would be cut from and a new ter a grafter in the stock - Country prope stout properties of every vine. Their he look we into the cellar and showe the whole process of wome making you the taken, the popular off the steems, the fermany the introducing of the culture in that pulped The change with other week the untrovertion of air which own to the oxygen and clase the ware to vinegas to the final bottling. A war farewating. It last we bore my officers with and any automobile love us to the Station in 10 min, We reached Solling at 12.45 , look the train to Inter Station and orose homegetter, Them at 1.35 Plu. heleane from all.

Ipsurch hums 1911 Herry recorded by lew. Towned. worken tw. Deans. Set 16-18 the west foggy weather, set wind, accounts to to it we ar, Hering Evel a jow were day night Her a 193 (.W.T Semi-pole de soudpieser / at at yn 'gin om selt wark.
Phedant 16 1 c. w. i. k. a. 17

Cros 1, 200 m. a. Fucker 17'12' verper than ! 17 and men we were Labanna 11 / 2 4 3 roll with of my 1 1 man to be 18 2 n3 Chipin " 18'42 " agrain is Sam dwell 17 Bank " 151 1 rea . 10/92 n3 Thrower 17 had 17 man for room with 1 in week 18 Kobin 17' 18' I or not see unself so. 2,3,5-7 and set the est. 1 collecter : Hudsone a time tobe, but Survines. I took a pocket of fruit in the food out an argacent plant. See note when left. 17 (2). Smilacina stellata (L.) Desf. Rather moist roarside leaving from the waise root to De Tourseuds tenete- There were several

1911 Sept. 23

Celear as crystal, meld, still, a perfect say. Kuthon +9 have had a most dely to Day write Well Execution in Concord We tok the 10.08 Au. town at no. Carle Juc. and were med by Will at the West Beston? Station. We wished from the trace as 5-Thrugh the wort this boat law ing where time iron or steek boots was typing. Hotypoulla articulata is trustant by the reichood track out I haw of in hoursy places arrow the user was Salls Hill. Sites is very aboutant along the cut Though the nest Medius that was more for be boat. He crosed the river to the cobin where Elbert was in spent the time before Truck walking our falls Hill and along the wor up straw wrearly the end of Will's property. The wages of the form tails It typises were I warring were not been come was said. The charging freight you los I there They ago and is my to suffer 10. It is reflectly writerous in the Frim by Typefor Sur on the Un This in the end free times I make I ame experience with my this camera lathing & a views of The seeing of bill thathe and of the Cobin on Fallet - I was in was or with be had a me o comes on the colon of Class, curris, viers, via, there were I don, with please the commenter. They we walked it the form there terms ite

Trip to Concord Mass 1911 with in Tavis' Hell where the five oaks are Sept 23 in from being cut som the daw to Tal wat the or a 100 ff high. Will sie is (2) is a laborate - 1 A is it. The bush I see these equally ..., then year . I get It - the a is now woll ted. The try strongs. Sund one very hearte be saw a bear there Harrings, - peach of secupalls, one of Multithroat, a joy caying like a tel steel of day. I would the Het these a use grove of them wear the farm trous in faction of rates. There are a prest hand Court and they were bericing. They . I a will of a with real proper is to ey I . It have sel the one of sel The Wes we bearing owing in profile often and spraying, in a west clusters of apples before. abut out the area tracks all over the area we walked over slew that deer are numerous ind - hur famed, Vills man, sees many . list 4.3. Ru we bere will good by and The fames deone is though Concord to the Fredering Statem when we tolk the U.D.2 train for Anies Sta. Home by electrics. The evening was spent in talk Eseus connater hull. berg about on the border of the creek sp. Balls Hill. Bet food. Utricularia rulguris 2 Paris columbianum Scriba Depl. sent hur la Chare) Story rather by word Aspet Hura Belli Hill, Cencor. 1911 nor. 5

Glorious day, clear, with light leage, air cool and bracing, sun strong, no wind, ideal-Tru. Stephen Thacker and I want out to melton this morning to visit mis lilice &. Margerson, Reed Thylland Its, off Kandolph Cive. The arrived a few minutes after 11 o'clock and were warmly welcomed and soon we Three with miss Tennant who is twing at The tente and is assistant to Mis Margaret Thacker took a walk in the Keservaten from about 11.20 to 1.45 nearly two hours and a half The Stroll was very leisurely one and we covered about there miles. It was very very beautiful. The only trees with leaves on their were the oak's whose brown leaves still pertested in numbers temph we waved on the nest father through bed of The same brown on cresp foliage. The tenses of the beau-Tikel Elestant Oak were very prominent und very beautiful and the acours very abundant. attempting to pich up some. I found they had all sproules, the roots peculvaling this to there enches into the foil. I took a few home. We fat an a rock in the fair and eaponed The delicions air and the view. Of one place we came upon a flock of migrating birds that we busily engaged in either cremming blecuselves or in feeding - these winted flocks at this season are always ex-Tremely interesting - I wold to following:

rep to milton, mass. Robin 1911 Chiebrorce mr. 5 (2) Milson's Black-capped Warbler Ing Charron Fox Sparra 203 Pine Liskin 5 or more Volute-Theory The Lisbeir were feeding on the keys of a White lish. We also noted on an walk, Crows, Blue Jays & Janeos a good times awaited us on an return and after a rest in the parlor and sludyto see her thus accised marthal and their Frieng farm. hu. marshall is an Englishman the Patz. who wrote row Brown, who wrote Tom Stown, We visited the borns where we 63 cows. The mulking was foing on and is entirely done by electricity. It is a word remorkable process and I was intensely interested. It is a prin. ciple of fuction, an automatic cut off making the action intermittent as in the case of band. milling. The time is naturally the fame of when the hourd is used but the ease and 7/2 cleantiness is most effectual. Mr. Marsh supplies the best milton families with wilk He has a Tage field about 6 in high with Celfulfa, fresh to rear Whe returned to the Lore, both our frew or grottye and teft of not 5 o'doch, revely home by 6,40 after a most delightful day

WEDINE

January 21, 1912.

Thomas Barbour.

Fisher Avenue

Brookline, Mass.

ENGLISH

Rice Chicken Curry Sauce Fried Shrimp Cakes Bananas fried Meat Balls Fish fried Aggs fried Cocoanut fried Onions fried Cucumbers Baked Tomatoes Penners Sweet Pickle Peanuts Chutneys Almonds Bombay Ducks

MALAY

Nasi
Ayam Goreng
Curi
Kroepack oedang
Pisang Goreng
Biji sapi
Ikan Goreng
Telor Goreng
Khlapah Goreng
Bawong mereh Goreng
Timun
Can't remember
I.ada
Can't remember
Katehang tschina

Kitapang Ikan bummelo Goreng

This was a Balarian since and the above was served as one course and all in one plate. he may of the importants Barbone brought wer from Java. Beer and after the above, in cream.

M. Deane.

1912 april 1

Clear, calm, pleasantly cool, rain in weing. I took the train to Concord this morning arriving at 12 o'clock. I get my Finner at the Colonial Jun aus then went to the Hubbie Library and inspected the Horace Many Herbarium There are about 500 sheels of slewfact figh in brown stiff evers. The plants are fluid to the sheets and are labelled. In many cases no dala beyond the home, alcomparis the specimen. Dalis are jurially lacking - hort of the localities are Concord Man., but a few head England Cours are also represented. Some other limited states localities are also there. Copparently the collector's name is inserted when it is not brocked Manny humself. No collector is onon for the New Duplant plants and it is presumably House Mann - The collection is in two small worken cases storited wir spropriate began ledes-The herbarum represents in the way. Horace Mauris son collection, I notice a few plants collector by Their -

1912 april 1

· at 2 o'clock I called an hur. h. B.do-Tradford in her beautiful colonial lause on hain SX. to see the herbaruin of ber late father Esward S. Hoar, I made the acquaintance of Mr. Hour on July 8, 1886, when we were visiting Will Brewten our his wife at the Colo mause. The How. Stoo ford were very coulears to me. We went at to The Summer house in the forder while was enclosed in plans and tool an open fire - The plants had contently been a long line stowed away in The born. They are in their while folders generally. caught on to the paper of strips and are Concord. I particularly wants to find a so-called Carep Tuckermani & Carep The Misslessey Hora, hat There were us Corios in the ple. On July 15 186 I called in her. Hove and worker trees in in formal that Thorean left Im. Hoar his grasses and feoges, but is Operacese of our kind were there hus. Frost for will have a careful search more who have northing remains in the 9 talker with his soasford about the collection which would be artiset menel before of vesites doing about any port.

1912 april 1

The plants are, many of them, wellin as it is from having no tota, but a laye umber should be used for she full, after with are, and will present them to the hew England Solanical Olule where what are furtable well be inserted into the berbarrier with appropriate label-There we sivere herry totallon Then I went to the Mublic Library this Helen W. Kelley, who was extremely polities to me - I wanted to cooker over the Thouan Herborium to the formy Carrier were there. I inspected the restarring on ful, 19, 1886, and found & just as it was then. It is in 6 laye passeboard folis, The mounting paper currents of sheets of their white paper measuring 14/2 × 23/12 in, len these loge unwieldy sheets are fastered with strips of furned paper as wany specemens as can conveniently go on - Oil, plants that we have horner is a be will vijfet i e an die " eel Tag und rooks" we reject P. have Than are your, may be on the frame fraction. I dotten a to their se Enclose in a con of its fare this of pages es the mountaing theels. a per of their course make a folis. There is absolute, no date excepting the war written a low that is a visit a locality on spite of the luge when the few the way we layer

1912 piel (4) than unto be adapted to a standard theet. A number of sheets of the save material but swaller are interspersed among the large ones. The only value of the collection is as a someonin. The plants are, present on as represent the component plants, if examined two of the six folios. There is in the collection a single Carey, C. Inpulina muil.

Henry D. Thoreaux Eforthis coilection to

Henry D. Thoreau Eforthis coilection to The Sorton Joseph of Mutual History. They give it to the Kellie Lilvary in Concord.

Brother before taking the 3.02 Frain beck. Fox & pairms, Ing & paras and fund were single were the town I reached were bound blants before a o'clock - Dr. O liver lines follows and Erroya came to ormer, after which we went to the huntal Clab where he. H. W. While the bust - the hunting anothering of the birs.

1912apr. 27

blowy, wild, a very pleasant day I have been again to Concord to Mrs. M. S. L. Brasfords. She had called me up a few days ofo and told me that the had found what the felt sure was the loriginal herbarieum of her father, the Cale Edw. S. Hour. She thought The mirring Corices of Me Hoar and Henry D. Leoreau would be in it . I was delighted with this news for sere were more plants for the ked By found Booking Celah too. I arranged Ato up on Solution, spril 2/ -10-on accordingly of the the 11,39 Loncord I found how. Brosford waiting for me in her little Ciotocar. She saw we a bearty welcome in I sive we to ber house. after a pleasant talk we repaired to the Summer bouse where in bofes containing 20 polios was the origin nal herborium " On the bock of each folis was marked the family or families at contained. a flame flowed we 3 folion marked, on the book Earey 1, 2, & 3 respectively. Count of there I took the Conged-for sheets. The to-called Carey tricks carps. Concord E.S. Hour, "Carey inchermanic. Concord E.S. Hour, "Carey inchermanic. Concord, H.J. thoreau - ho. /= vesicaria. les. 2 = resicaria, var. monile, lo. 3 = restrata !!!

1912 apr. 27

The trouble was over. This will all be epplaind in on veft (arep paper. A was worth much to get This. Then I had a designated bunch with tue. Thus. The ofort who were us kind and boxpitable us could be , and ifree Could have in her houthoug Hiercearion with leaster. Ve visited the Tolf Links where him Bookford bod pone efter hund and Then returned and store sast the mause over the river and on to Hill brewster's place. He was up I presum et it The Cabin, but I and Towers. Then we coust Carliste 4risk on Through Serford, Vist 25 ford to Concord Station where left Min Brosford, at 4 Ren. Un the suive I bear Kelins, hear wo fails, Junes, Realogy Brieds, and I was interested We puties Several paletos of town front out Relieving home I stopped at M. Lo. Fundos over the Come with interest. The names are as come, and the with published in Dame + Collins Flow Mardleter Co. exploded reaches home by le or double

1912 may 27

The day has been clear and warm and there has been very lette breeze. This morning, about quarter of ten, The maid called we out taying that the air been of the base was full of bees, I hartened out and ture enough The wir was full of tres fly in work quedly around The renter of the laye nouve, I proces i, The leve on the yround found, owned by way slassman, tom ilekur. I beg more a deafering words. I knew that they was from the west suddenly. approachen juice here the and preum up with the Sweller, I discovered the Swarm rapidly forming. It her, from a vear, borigaise brown some 12 to 16 feet above the ground - hor long often 9 before to watche the Levarun, all but a orgin or list of the been had settled on The straight conical wars. This swarm was attailed to the branch for some 16 inches along its surface, and its vertical leapth were about the same counter. It was rounded 25 The lover end, and wear the top & was Sime le inches thich proving less town the open or point, and toward the live of attachment, The queen of course, was in the center of the swarm Imewhere. There was much movement on the outside furface of the Ewarm, the beer travelling about on it we

Fee Swarming Cambridge hars May 27 Every Trection, while even at the quietest aime in the morning, a few bees were flying about the swarm not going more than two or there feet from it. The swarm was pretty well hidden in the tree by the short terminal needle-covered branches hauging about it. When the feworen was complete, without after I first faw it, the apex was about I well from the next lower horizontal branch. I some two bours later I writed that the apex was resting on the lower tranch, while there bod been no accretion of wembers in the bees. The wars must there, us was natural, elongated some as time went on. Indeed 9 50 wo see how the bies especial, in the upper part of the Iwarm were the point of altachement can possibly how up the thinsand of their fellow (a rather worker) bees at all -I wolched the Swarms from my wintow, reading meanwhile, till 1.30 Plus to see ite beer leave, when the Scouts Should return but withing happined. Then ut 21/3 I lote on suton obile rive with but hus. The willow after shaving his heliday the fivering (has bely term come up in the morning). Hetwining at le Ra, the Swarm was stell there and Cater at 6.45 no cleans but taken placed. Dar Buen som set en. lis for as I could the be , were brown with us speced markings. huy figures are scaun from jurial deservations

1912 May 28

Day clear and warm, calm in the morning wary in the afternoon. Fast night clear and cool-This morning at 8.40 The want hurriety reported that the bees were leaving. I rushed from stairs to the area of the Spruce tree where they swarmed. The air was filled with bees forming a Swarm Some 20 ft in orange . The bees from 6 in to 1 ft. apart. The Luarun was about 20 ft above the proud and was slowly srifting west they were with for from the tree when I saw them and I walched them with my glass Till & om the ordappeared from sight in the blue ether. It work a west impressive sight. I deloted away them one very laye bee that must have been a drone- Had I Room that The bees were foring I should been been on the sport to see the Swarm break up. They have from the tranch from 9.45 Abi. yesterda, to obout 8,35 Hu. to-org. 180 not pun whether so long a time is usual. Whence or they came and whither o'd they fo? They wave a loud word with their bushing their morning, or they ord yes.

FORM 61. 1M-4-'13.

THE COMMONWEALTH OF MASSACHUSETTS.

METROPOLITAN PARK COMMISSION,

COMMISSIONERS: WILLIAM B. DE LAS CASAS, CHAIRMAN. EDWIN U. CURTIS. DAVID N. SKILLINGS. ELLERTON P. WHITNEY. EVERETT C. BENTON.

GEO. LYMAN ROGERS,

CONGREGATIONAL HOUSE, 14 BEACON STREET,

BOSTON, May 10, 1913.

(G.O.-Gn)

Mr. Walter Deane.

29 Brewster Street,

Cambridge, Mass.

Dear Sir: -

In reply to your request for reports of the Charles River Basin Commission, I regret to say that I can only furnish you with the seventh and eighth reports, for 1909 and 1910, which I have mailed you today.

Very truly yours,

Secretary.

FORM 61. 1M-4-113.

THE COMMONWEALTH OF MASSACHUSETTS.

COMMISSIONERS:
WILLIAM B. DE LAS CASAS,
CHAIRMAN.
EDWIN U. CURTIS.
DAVID N. SKILLINGS.

EDWIN U. CURTIS.

DAVID N. SKILLINGS.

ELLERTON P. WHITNEY.

EVERETT C. BENTON.

GEO. LYMAN ROGERS, SECRETARY.

(G.O.-Gn)

METROPOLITAN PARK COMMISSION,

CONGREGATIONAL HOUSE, 14 BEACON STREET,

BOSTON, May 16, 1913.

Mr. Walter Deane,

29 Brewster Street, Cambridge, Mass.

Dear Sir: -

In reply to your letter of May 12th would say I do not know how you could get a complete set of Charles River Easin Commission reports unless you could possibly pick them up at a second-hand bookstore.

In answer to your enquiry relative to the freshness of the water in Charles River Basin opposite the Cambridge Cemetery, I would say that an average of fifteen analyses made of the water in the Basin at Western Avenue Bridge in 1912 showed 32 parts chlorine in every 100,000 on the surface, and on the bottom 54 parts chlorine to 100,000. This is practically fresh water. The analyses at North Beacon Bridge made even a better showing.

Very truly yours,

Secretary.

JOHN R. RABLIN, ENGINEER.

METROPOLITAN PARK COMMISSION,

ENGINEERING DEPARTMENT.

14 BEACON STREET.

BOSTON, June 5, 1915.

Mr. Walter Dean, 29 Brewster Street, Cambridge, Mass.

Dear Sir:

The following table from the chemical examination of water in the Charles River Basin, taken at West Boston and North Beacon Street bridges in 1914, shows the number of parts in 100,000 of chlorine:

West Boston Bridge, Surface, July, 35.00; Oct. 174.00
West Boston Bridge, Bottom, July, 65.50; Oct. 168.00
North Beacon St. Bridge, Surface, July, 1.60; Oct. 140.00
North Beacon St. Bridge, Bottom, July, 1.50; Oct. 143.00
Very truly yours,

Engineer.

HIRAM ALLEN MILLER
CONSULTING ENGINEER
8 BEACON STREET BOSTON

June 5. 1913.

Mr. Walter Deane, 25 Brewster Street, Cambridge, Mass.

Dear Mr. Deane: -

I have your favor of the 23rd. ult. an answer to which has been delayed on account of absence from the City and other matters.

I regret that I can give you no assistance in obtaining a complete file of the reports of the Charles River Basin Commission as I only have one set myself.

The State Board of Health kept a record of the salt in the water in the Basin for some years after the tidal flow was elimated, but I do not know whether the record has been continued or not since 1910.

The following is a list of the papers in regard to the Charles River Dam and Basin which appeared in the "Engineering News":-

pages 31&33 "Engineering News" Vol.LIII LII. 305 TETE 243 LV. 22.55 LVIII. 311 11 22 27-4498 LX. 11 FF 27 LXI. 2222292 17 22 LXII. 22 22.15 LXIII. 83%615

*[... 8 p. abore may sea feel]

The permanent level of the Basin is at grade 8 and it rarely ever varies 2 or 3 inches above or below that elevation. There is no appreciable current in the year below the arsenal, except in case of heavy floods.

If I can give you any further assistance in your investigations, I shall be pleased to do so.

Yours Sincerely,
Himour allurille

Rublie Document no 71 Sixthe Common Report Chaus River Busin Commission, December 1, 1908. Rule. Bestin - 1409-7 1. The River closed by The Shut-off Dam. On lect, 20, 1908, The eighty-two gates in the shut off saw, described in the Commissionis Cart report, were closed for multaneourly - , " the sasin in the bep-2 grining had to be felled for the most fourt with falt water, the long ornight leaving reduced to daily flow of the Clearles River to so small an amount that to feel it unte freshe water would leave taken wany days; whereas it was possible to fill the Basa in a few loves with water let in Through the sluies - The permanent mater level, established from after the closing f the shad-off is not the grade of & feet above boston base, and Soston Base is 0.64 of a foot below mean low- water mark - " Schentien and me half miles of Shore line leave undergree a transformation which will remove that further insprovement of their matter of small aspents compared to the cost of their breatment is I before I p 3

p. 34 On the morning of Coctober 20, forly - one men with cases were usigned to their stating on the frame from which the gates were surpended, and each mas was instructed in a given figured to cut the ropes that held twop sees, after which he was to come oring, fuster the gates in place unter locas and see the cute gate way completely closed. At 11 A.M. The figural was given cut in two seconds all of the fales was form; in two winutes: They were all wedged occurred in place. oxx a lays plant. placing earth fill my the work of short- of I seem writing a week

The fill was well up to ordinary high water, and before the west run of high toesthe fill was more many complete. There has been no appreciable movement of the structure since the filling has been in proper,"

Copiet of Moeane at the metro. Pade Comm-14 Beecan W. Boston May 29/15, JOHN R. RABLIN, ENGINEER.

METROPOLITAN PARK COMMISSION,

ENGINEERING DEPARTMENT,

14 BEACON STREET,

BOSTON, June 22, 1915.

Mr. Walter Deane,

Shelburne, N. H.

Dear Sir:

In reply to your inquiries of June 18th, I would say that the information in regard to chlorine in the water of the Charles River Basin was probably from analyses taken at different seasons of the year, and if you could examine the records of all analyses you would find that the quantity varies from practically nothing in the spring to from 100 to 200 parts in 100,000 in the fall. This variation is due to the fact that the fresh water flow of the river during the winter flushes out the river and keeps it fresh until such time as the lack of fresh water from above allows the amount of salt water to increase.

The salt water entering the Basin from the operation of the locks, being much heavier than the fresh water, is likely to affect the water of practically the whole Basin, especially in dry seasons, but remains at the bottom of the river.

The elevation 0.64 below mean low water is Boston city base. The elevation which you saw on an old map at City Hall, Cambridge, referred to Cambridge city base, which is 4.98 feet below mean low water.

If at any time you desire to examine the records of the

analyses of the water in the Basin, you may do so by applying at this office. It is considerable work to copy them and you could probably obtain all the information you desire by just looking them over.

Hoping that this gives you the desired information, I am, Very truly yours,

A. Rabbun Engineer.

Charles River marsh. length \$ \$0.50,000 th 3. 334 yd. (800.00 bt. greatest with 266.66+4d 243.84 m. [(untime city bare is 5 ft below mean loss water Alas M. Elevations are above city base. map of the city of Elevation of worth Cambridge orange from about 18:19 action Surveys unter The overetim of w.S. Barbour City Engineer. - 1877 -City Hell . Cambridge . by 200 ft = 1 inch 42-221 Walter Deave. Cfs. 29./918.

Charles River Wark Length = 2250 fc 750 900 685.80 meters .426+ miles 390/t or 130 yor Cen they a will Width = 800 ft. 266,66+ yes 243. 84 meters about 1/6 of a will From cluein of warsh to Dan 4,72+ miles From emer of warth to Western avenue Brodge, 1.45+ miles . sown stream From center of march to horth Beacon, Svroge. 1.82+ miles up of tream Jum eming much to Brokeline Bridge 2,36+ miles som, stream. Cephryimate mensures_ Te me my tracing of the worsh from weap of Caty of Cambridge, 1877, at City Hole, Cambridge. Walker Little of Dule. Co., 400 hearly St., Sosten, mantem balertum dans to present dans was want of river

6.17+ miles.

Cambride hear. 1912 Charles Viver warshes was Stillman Infirmany July 17 There is a laye extent of warth bordering Charles River on the left bank, bounded on the east by The river and on the west by Cumbrisce Cemeley and a piece of anochapied land just write fit. The warsh is broatest in the center (about 650 ft.) and lapers to a print at each end. This area like so way other bortering the were writing tetal lunis was a typical Salt worth before the rain was credit bow for the old talk regetation lad tothing possession, I wished over the The bulk of the area is covered to Sparition fictions (aix) Mull and Jumes Foranti Lovisel but the foreign plants are rapitly taking possession and during, at the original decapacity I with both with me aspecimen of wayster, that I could find and the following is a list. I have I wered though a man = plant collection on sine Two checked out in interior in the world he a x on some ong - her spo for the worth will be worked in over. I are introduced foreign blank I Typhe latifolia &. In a foot fwater on the booker of river a number of plants - Fruiting. 2 x Holamogeton Spilugorus Kaf.

Cambride, hors. July 17 3 Hotanogetar criepus de. 4 Sagittaria Catifolia Will, formen gracilis in few plant on river margin. Finite Man land was 5 agrootis alba L. Scattered over the area 6 Agorstio alba L., var, vulgaris (arth.) Thurk-Occasional 7 ligiostis hymnalis (ball.) Post. Scattered pateker, conspicuous-X Spartino pateus (aix.) mull (tire 7.7. Hubbad, 60d. 30/12) ben abuntant, forming large areas and making a large part of the vegelation. I Spartina huchanxiana Hitche Opperently this has been about in These situations and bas been cut sown, In the cut of bases are very without. 10 Hoa compresse L. But me plant recognized. No triflora Silile. Tregreent. (70 7. 1. Holland, Got. 30/12)

Cembrite, hars. July 17 Ruceinellia maritima (Hurs.) Paul.
(3) Ca few plants only seen. Rootstock present. 13 Phalais aruntinacea to. " Philsum prateure L. Crequest. Sept 25) 15 agroppin repens (b.) Beaux. aburtant? is Secole cereale to. A sugge plant in middle of morth T' Care sulpinoidea michy. a Ligle vigorus plant Lewis winor Lo. abundant on river border "I Junior Gerari Loisel. Or large feature of the regelation, occur pring large deuse areas. The plants bying flat, brown in color, print ripe X Jumen brack, catholis (Engelm) Bucheauce Cleasional and 21 Beterta populifolia Munch. Cibrusant along bordors fereder, 5-6 fr. high.

Cautriore, mess. John 17 Rumey crispus Lo. grain subplotore with rounded ents. (4) Widely realtered, the brown the very conspicuous. 23 Poly forum prolificem (July) Robinson-Scattered Fice B. L.R., wor. 2/12. Doly Journ Capathifolium L. rice B. L.R.

Scattered frank. (fee further notes)

I plus only break, and started but ? ingened that

25 forgonium Versicania L.

Single plant. 26 altip vep patuler L., var. Certata (B.) Evay. Y 27 Spergulaina marina (b.) ? risel. Feathered Throughout. 28 flepstreum virjaieum L. cot. ace. 0= Trequest. Petaliferus. 29 Trifolium postente Lo. 30 Tivifolium bybrisum L. 31 Potentilla monspelieusis to.

Cambriore, mass. 1912 70/17 Polentiller Auseriner L. (5) a Gew plants, river borrer. X Rosa rugosa Thunk. Or derifty shruk. 3 ft bight in the worth 34 Rosa viginiava will. Olue plant on the shore. 35 Epilobium augustifolium Les a duigle plant. 36 Oemotheren muricaten h.

Frequent . Broads leaf-like . Spraving bais on stem 32 Cicuta bulbifera le. Two plants, iver bank. 38 Cussula spr. probably Eronovie Wills. 39 Lyespus americans mull. Occasional 40. Linaria vulgaris Hild . le lettre al, 41 Liveria cavadensis (b.) Dunart. abuntant over the area, prowing in large, thish poteties.

Cambrioge, wass. 1912 u Plantago magor B.
(16) Dordens of marsh. Pod splitting near middle. 43 Plantago decipions Barneons. 49 Solitago sempervirens L. a single plant seen. Howering. 45. Solitago graminifolia (L.) Salish. 46. Erigera canodensis de Bacchair halimifolia L.

Two a three strubs well out on the word. His planter inside the iron railing on but leaburn St. off. Sparks and in the casterly (a laye alump on the end of prime It, and casterly (neuros tim, ay, 31/2, 4/2/4 light) 48 9 nophalium poly explaner michy. 49 Combrotia artemisiéfolia L. Cleasional. Sidens frantosen L. a vulgater Greene. A little, river bank. Leaves only.

Cembrogehass July 17 Bidens connette hubb., van petidete (kutt.) Farwell. 52 Cichillen Millefolium L. artenisia rulgains L. about of warsh. Erechtites hieracifolia (L.) Ruf. aburrout, forming large petities Circium Cancerlation (h.) Hill. 56 Cichorium Intybuols X57 Sonclus arveurs L. a Ges plants, in flower. Souchus oberaceus L. Occasional. Souchers asper (L.) Hill inflower from the leaven to Ceasion l. (I can find non alle to fruit . 645/12 Lactura scariola L. var. intégrata Gren. 4 Fodr. Le Ven Austant. coverins laye putates Lacture canadensis d. Occasional. Total 61 1912 July 19

first to the march by Stillman Infirmary.

I went again this afternoon to the marsh by the river, and wandered carefull over the entire exicut, that is to while the river bould comes close up to the sleep petch both of Combridge Cometery. The bound of the iver the wine orstonce. I notes a munder of new plants and I mode observation on the occurrence of there notes yestersay extending the range. I saw that a rough cast rood, frime of two ruts lead into the worsh and Feransi Loisel, had been car and removed, and in other cases, it was your cut. as I mentioned July 17, there were large areas of uncar Black Fran, hown dur tying flat, as if beaten sown of out quite see what has caused this. Creeks reasily crossed, from one to about six feet wide are frequent running cost and west, that is from the higher land to the river, while one creek sure three feet wide you tendo worth +8 mich for some orstance from showing their telves and in one spot I started from under my feed a young

July 19 in a great learny, scopping into the pross
(2) a short distance off, and aftering a curious
prent, prent, aleasimally I heard a Savan
now Sparrow and, as I was talking with
hun thus. Dain's Haskins whom I west on
the northern bover of the marsh, I faw
a flock I 8 or 10 Slack Ducks flying
of own the river and later returning
and flying over the Stillman Infirmary

Cambride, man. July 19 Additional notion on some of the plant world (3) on July 17, covering the cutive worsh (3) Potemojetar crispus h. Hearely proving along the cultic back one The wave distance of the works -(4) Safettaria latiforia Wiled., var. hestata (Harry Nebrusia as Common along river war in (From Southerles as X(8) Spartina pateus (Cirt) huntle (4+30/12) Corning about 1/3 of the area (9) Spartener Michangeaun Hetete hot uncommen on worthern end of warsh, from away from the creeks. (16) Decale cereale L a few plants. (19) Juneus Gerard' Loisel This Black Grass is cut. I saw laye areas that been cut and areas with the Junes bying cut on them. (20) Tuens bracky chiphrales (Engelin) Buchenon - Decarinal. (21) Octuber from the force marsh, Cibaudant on back of river -× (23). Polysonem for life com (finall) Roberton. (25) Poly onum Persicaria D. L'everal plants

Cembringe, mass-1912-27) Spergularia mariner (L.) Evrsele.
(4) Cibradont, forming deuse patebes (28) Lapidieum virginieum L. Abundant, formies deute patches-(32) Potentiku Cruserina to. abundant, Throughout in damp places, -especially in creeks. (35). Epilobium augustifolium &. (37) Cicuta bulbifera L. Gleaseard along river bank. (39) Lyspus americans buble about nt alog user. (43) Plantago decipionos Burneouds Obuntant, formir deuse colonies (46) Erigeron conadencies L. Frequent. (50) Biter fratosa L. a religion Evenes. (55) Ceisium Canceolatum (6.) Hill. Charther plant.

Cambridge Mass. 1912 July 19 Somelius arvevris Lo. (5) Several seations, one large one in the Southern end. (59) Souchus asper (L.) Hill (not sufficients. Cleasinal, but less frequent ilan conveniens. (12) X Pullinellia maritima (Huss.) Parl, im as trust flore Lettina (Hir 7.7. mys. out 30/12) Seattern Stations List frew plants found to-day on the marsh . I take them home and have pressed there checked X. Safillaria Catifolia Will. Cubrusant in vitch at southern end. Growins with the type. Robinson (Mull.) Polamogeton dimorphus Ral. Considerable in a boy of the river at the Southern end-65 Echiwoldoa crusquelli (b.) Beaux. 2000 1 Three plants on worth. × 66' Spartina poleus (cist.) hull var junes (mide) (tiste (2 is 7: 11 Md) 000. 30/12) Sculture for fubaleum to capture of march.

Cambride Mess. 1912 (68)
July 19 Carep Cramfordie Fernald, 0x. 28/12, 4 W.D.

L'ini in Clocoparin Schlenter, afstarred from horis wing an okning the formathodes Fernald.

Clarep hornathodes Fernald.

Ca plant by the river; overfule. To Juneos Cennis Wellet. a plant in mitter of march I Kung Acetosella L. Frequent. The Success (ineans (ill.) mog. Daniel of the river Learn flaveous. Ce humber of plants seen over the marsh. 3 + 7. 74 Frepratiens biflora, Walt: a vigorous plant on marsh, south end, To Hypericum boreall (Svitton) Sickwell a number splants together & river-The Epilobium coloratum hubb.

Seeds abruptly contracted above leaves and the colorated above leaves and the color of the work Compales, Cancertain frequent over the work Com. 31 Reject this Cicuta maculata h. Ce sigle vigorus plant y a diteti-

Cambridge, hass. 1912 78 Junovium carolinianum (Walt.) Boitton (7) 78=96. (Que plant on river bank closely water. Tangeten vulgare L. One or thoplants Eirsium arveure (6.) Scop. I i arapación officiones leber hum, lobes strongly refletes. Come or throplants iotal 81 1912 July 20

he work by Stellman Informary and back flumbridge Chemetery-

This worning Will Brewsen & I splan a comple of bins on the worsh believed the Stellman Informary, Traversing of Justi thoroughly to the end, and then elimbing now the Kurll just with of it. and through the laye field purchased lately by Growne theed for their school boys, and Aberting which the Forbes house as then home by Elmond (we and) Evalle It. It was an expressely incally or oritho exically. Will was very undy pleased to hear and see Javanual Spars hours on the westly at this breeding season. Che about Hack Duck, probably a female. teading a brood of ten well-grown young on the river was an allvactive sight while a family of Sparran Hawks among the trees on the slopes back of the Cementery suggested that they were the brood that were reared on the Channey Smith estate on Gralle It. unto their parents. as we rounded the Bull with of the Cemetery we heard The call of a bleesant, and later when back fthe Hospital we lead another call both some stance M.

Combridge hass. 1912 July 20 I am getting were acquainted write the (2) worth as I walk over it. There are lind vitely that exert worth parellel feach other, starting from the southern and Well's theory in regard to the prostrate Lucy General is this and it must be correct. The foil is getting more and more aucon ferred to the Junus, for the water of the river is was absolutely fresh. The plants reached their growth on these areas, but could not writified the severe drought of June of The early part of July, and thes, This and the severe rains have besten them suns flat. Laye areas both as if the funcul hat bear cut last tearen but hat been unable is come up afain this year. The ortales a cheeks that about on the warsh contain still water in the bottom, generally connecting with the river. This waln's almost choken with 'wifflers' and the mosquitoes raised must be sufficient to infect a city. We estimated that the orea of the wards covered by Junear Gerard's must be want one holf. Sparling pateus or its van juncier, or both (9 fleath determine later) must cover about one juanter.

Cambrioge mass Observation on plants alvery noted. (1) Typha latifolia lo.

Cibrust sut ui vitela, smile end, flowering

Receinellia

(19) Junus Perart' Loisel,

Le wie (703, 20, p. 2) (35) Epilobium augustifolium L. Searter plants, veny low, about .3 m. high (44) Solivego dempervirens do. (57) Somelius arventin d. Or lave flowering patile to rever at broaverst places pind of the marsh hew plants -82 Cheurporium album L. a flourishing plant in misse of worth-(X 83 Karicula palustris (L.) mouch, von hispida (desv.) a single plant by river - Robinson

1912 Ju420 (4)

Bird Observed on a well with William Greuslin over the worth of Stillman Infirmary and round over the France & Niebols field of Charles Diver-

and rubripes. 100 + 10 im on the river. The ad. leading the im brunched. Altitis nacularia. Abuntant along the river.

Plesianus lorguatus. one head twice some ristance off, fint from the mound were the warsh of the attiletic field and of an as we were of the back believed the hispital

Jaleo sparverius. About 5 Together among the trees on the Hope believe the Cemetery. Cher flew into a Core with apparently or smake havying from its claws. It looked green— The bird supper D. and surper of some into the yours with bat been cut, and alighed in a tree were us. It evidently had tived for our intest and taken the work with it for a top with the law - This flower evidently beloof to the Channer fruith

Cerre alajon. Oue flyin teelling.

Cambride Mass.

1912 July 20 (5)

Colaptes curetus 2

Chaelura pelajeia 12 a une.

Tyramus Egramus 1

Corrus americanus Sweet

applains pleasureus Flock of about 30, and insiridual buss. One im.

Sturella major 3 or 4, singing on the world

Luiscalas juiscala 30 + insinsual his

Hasser Tomesticus Leveral

Passerculus santwickens savanna 2*+/seem. Un the warsh. Welstpira welstia 3 or 4 th on the warsh

Den Troica aestiva 1, Coolinge Farm

1912 July 24

Colean as crystal all vay, very cool & bracing. Fresh breeze till latter part of afternoon.

This morning I took The G. 20 A.M. train at the North Station reaching Devereax, The last Haston before marblehead at 9.56. There I met Mrs. Groge Sheffield & Mrs. Esward Myman whom I lead could for we un a light oforen carryall white a river and we had a delightful ouve south Toward Clifton, with The vecder and rocks on one left, and band some estates on either site. The roots are Superle. Keturning we took the beach Ce fine view is oblained of the Harbor fills with myriads of craft of every description From went among these in the Horse. To lies anchoud I'me orstance from the bead of ite barbor and presents an old appearance. We dove around the need passing ion Tellus house. at me place we slopped to see an Italian factor. Howar a very remarkable transformation from the barren soil on the rocks - a pergola stord in one place and flower best and paths between them brightened the scene. Curious figures. perhaps there feet high resembling monutains Summer, with beard smelines, and in spready natural color were & called about in very

a trip to marblebead her, muss. natural allituses, about deceiving one- Oux Tuly 24 little feller was resting in a bank with his selond on the gran out his head on his bead. Curter was standing in the flower bes and to on-Keluring to the stive we want slaying. We sot on the peasexa, talking and enjoying the fresh air. During the Trive and period before when I found my light wereast a confort. The air was as clear as crystal and I enjoyed the after a heary buels and another poleasant session on the peazona, I bede Mrs. Styren forthy and hus. Haffeeld I took the feer and went sound the bar bor, finally tanting at murblehead and Fort fewall - he passed the Rirate's House Tall 1620 at we visited ligner Durriage Hell, an old fasterined well on the lite of the old fountain I am - the went up on to Bout fewalk whose ramports are, still standing out tot there some time, The site at the west cultivance to the Harbor and it immands a very fine ried over the harbon and the bay and Baker's Island with its this lights and

I thought of the visit is this sport

a trip to marblebead heck, Mass. that h. + 9 made on lug. 19, 1901, fully recorded in my Journal. We then wandered through the town, traversing quant, narrow, steep streets A times descending from one elevation was love level & steep and norm Atalos. I saw an old bruse with the following mold Birth Place of Moll Pitcher Trected Pitcher 1650 A. F. " Mrs. Fleffield alcompanies we work bo The Station where I took the 4.48 train reading home of 6.15 after an extremely pleasant day Cit lunch I was introduced to m. Thus. Pleasant Hibbard & Min Hibbard from Pettsfield Man About I believe. In Wibbard told me that he started recently an ow Pheasant and brood of 8 or 10 young on the beck near a bouse from among some scrale. He was surprised to find them so wear babilations. M. J 9 risiter Marblehead East year on aug. 30, 1911 to see Mrs. Hyman Has. Shiffeld

	BOSTON		REC	CORI	F	R N	INE	DAY	S	
goston Herald - July 12/12- Fritay										
		Wed.	Thur.		Sat.				Wed.	Thur.
1 A. M.		68	71	72	70	72	72	80	79	75
2 A. M.		67	70	71	69	71	72	80	78	75
			69	70	69	70	72	79	77	75
4 A. M.		65	68	69	68	70	72	78	76	74
5 A. M.		65	67	68	68	70	72	78	75	74
6 A. M.		66	68	69	70	72	73	78	78	75
7 A. M.		69	72 .	73	73	75	74	79	81	77
8 A. M.		72	74	75	75	78	76	84	82	. 82
			81	81	80	82	81	89	87	85
10 A. M.		85	84	85	83	85	85	93	91	88
11 A. M.		88	89	87	86	87	88	95	94	90
Noon		90	90	90	88	89	90	97	96	75
1 P. M.		91	92	91	90	91	93	98	96	74
2 P. M.		92 "	93	91.4	89	93	90	97	*87	80
3 P. M.		92	94	90	88	92	94.4	99	90	77
4 P. M.		92	90	88	87	90	93	96	85	70
5 P. M.		91	88	87	86	88	88	88	89	71
6 P. M.		90	85	84	83	84	88	95	89	74
7 P. M.		86	84	82	80	82	85	91	85	72
8 P. M.		83	78	79	78	80	84	88	82	73
9 P. M.		79	77	77	73	78	83	86	80	72
10 P. M.		75	76	76	72	76	83	85	79	72
			74	74	71	74	82	85	77	71
Midnight		72	73	72	71	72	80	84	76	70
-	Tuly	3	4	5	6	7	8	9	10	11
*At 1:					degr		0	7	10	13
*At 1:15 the official registration was 97 degrees.										

Cambride hass. 1912 First & Blacks River march back of Stellman Infirmany ay. 16 This morning dr. S. S. Kenney, he daw Hen show, I. Walen Layon & I went over the Clearles Kiner march, Several new species too sopr peared since my last visit, July 20, and species flowering their were sitter fruiting or part. hu. Heuslian while crossing a wide ortale Housian on a board that was lying across and used as fails wis a fort bridge, broke through and displed with a sitch the thick wedy bottom above his waist. Wo have resulted beyond the weiting - Henshaw I fayon left after the welling, but De Kenney +3 staid till one o'clock equining every ting, How cottested on the works on observed (4) as ried - Covernations of plants already world-X Sagittaria Catifolia Willd Grand trastate (Purle) Robinson Star and Inglie I collecte a form on the river bonds with (19) Sparling Michaeye and Hitche. Considerable more from oral. This Hack man appear to bake been all cut and removed. Ceruta camabina Lo. aboutant, both & of plants, on borrer of sitch bed of Cemeter, and parallel w wineClaubrige, massCuy. 16 (28) L'épérium virguieum Lo

The prevailing species, aboutout, especiel

man the river broker.

(76) Epilobium coloration mubb
Obrantout at s. end. Rubescence in lines

of incurred bairs, leaves six tineth petioled

bertone trastata L.

Come or time plants.

(39) Lycopus americanus semotos americanus mubb.

Obrantout y iver. Stotoniferum, sterile

filamas conspicuous, l'éps publiss.

(45) Gnaphalian fot caphalian bucky. Rather abuntant.

(61) Lactura canadeuris L.
feaves plobrus, akteurs 1-nerved,
lecarinal -

thew plants objerved x = collected

84 Potamoption bufoleuroises Fernald. Leaves not erispid. a single plant in the large core at 5. end.

* 35 Mais flexicis (Will) Rostk. + Schmidt.

Cambridge hasis. 1912 aug. 16 86 alisma Haulago-aquatica L Tors or these fine flowering plants at worth of witch close to river, about wirrow, n+5. 87 Paricum vinjetain & Cattered throughout, your, 88 Distichlis spicate (b.) Frem. 7 Considerable at n. and. x 59 Sparting gladera bally on polota has. 1 90 Cyperus ferax Richard. at went toccasional ats, and × 91 Seinfrer se fartis Britton, un Vorce anglice (Brittan) send * 92 Polygonum ramosersimum hicky, vor. atlanticum R. Minson 118cm high, erect. abuntant S. end. Polials executo. 93 Raticala palustris (S.) Mocacle. Single plant on march. Plant plabrons -In berk. & & Kennedy. 94 hulilotes officienses (t.) han-Drump close to tome point of the worth. Post cross-ribbed.

Cambride, Mars. 1912 Cing. 16 X 95 Lyclinis divica is. Large clump on dump on booker of and one part of wards, Hover open at sund one between 92+93 96 fimorium carolinianum (Walla) Bretton In ortete in middle of warsh 96=78 97 asclepias incanata L., var, pulchra (Elish.) Pers. Several plants in water of river, borten of wards 98 Verbena bastate L. Single plant on worth near border, s. end. Eg Gerardia parporcula (Gray) Bretton maritima Raf. Single plant on marsh. X 100 Eupatorium parpureum L., van maculatum (h.) Dorl Single luge plant on the marsh-101 Solidago altissima L. Stem pubercent, involuere 3.2 mm broad, a Clump on the warsh-102 lister Subulation Micha bery abantant over the worth on creak borden. hot yet in flower, X103 Holyoum orange to, prolificum (Swall Robinson abeutant on warr, n. End. Short be after 91.

Cambridge, mass. 1912 Cug. 16 I collacer this noon in a sitch on the Cooling Farm near Cambridge Cemetery: (5) Polygonem pennsylvaniem &. rin 3. L.R.

acre HBK., vor. leptostacly um meisu.

ren obenson - rise 3. L.R. nor. 2/12. 1912 Cup 18

at about 145 blu. clowing and cool, I was Swam called to the front of the house, as I was buchin of bees. with the report that the air was full of bees. With thoughts of an experience similar to that I have hoped for the first, a large twarm of bees was in the air as before, but this time it was centerini, with limb house about the top of the Tall bride chemies on the rear end of the Toro's house, corner Riedesel cope to Shewsen St. I could see that many bees had alighted on the vulside of the chimner close to the top. The second was going some the chimner of walches their members proving cess to cess and in a half bank all but one or loss bees had tridappeared. Exactly what it means I so but Burd. The house is closed.

[Charles & Larton one man, Cold me a few days later that the next day he saw about two dozen bees on the wintow panes of the closed windows inside the base. They was worked their way down the chimay and unto the store. They does som in the base. The bulk of the tworm Carl felt sure left the climany cas the previous sworm of May 27 (ast left the Spruce i vee (See Journ.).]

e Cuy. 27

Visit to Clearles River marky.

I spent there hours this afternoon from bout 3.15 to 6.18, with J.R. Clewchill, on the Cleans River worth back of Stickman In. firman. We traversed the whole area and I more work work out from to more species.

This intensting to see The contract of

Some of the envolving plants. They believe as

many species have true and are still down,
when witnostimed into a new region, talking Compatit

prossession untout restricted and deared come witness to

prossession untout restricted and deared, come witness to

seen elsewhere. Lacture scariota, var integrate

Sechtites hieracifolia, fineria canadarini une illus.

Trative. There plants from orn the mersher,

that were covered to high lives, in downte pro
fusion. Win strange to the Linear Canadamis

to trieber from a large pater that heat

here cut down and that would make, if

Startles, a ford-sized coeff. Junear Geraria

is cut from whattaken off, in is shown to the

large east areas with the rush either by us

teery to be taken, and absent, removed.

The saw a Spotter Santpiper very close at hand on Spotter The words. He flow over the ruin with wing tips about fait peper touching the water. a breatow lash flow by and alighted heart and or the words. A Sperior thank found were us.

1912 Ceng. 27 (2)

When I find visited the ward in the widdle Polamyton of July the broad band of totamogetine crespus crapas. that lived The margin of the river a few feet from the bank, and was a few feet in wisth was floating just below the surface and juste risible. The plants are un breaking up and hot Cettle can be seen here and there i bey are in flower by the end of way and in fruit by the middle of fully when the plants are beginning to orsule vale. The area of the warth or well referred - It has its writtens point just offoria of times Hill where there wer to be a bay wow worly filled. let the point the ligher land run straight South, part of the trustary being a bill layer cut away, and just bey and Combride Cemetery. The river maker a trood bear just beyond Simus Will, going up stream, returning to the ligh bout back of Charling Courter, about be its foot sugar the worth brooker again. lit the southern point a broad sittle cuts into the marsh from the wies, was, I the fort of the backs and then turns worth in two parallel vitches In some vistance. Parallel siteles running acron the mark east and west are fryuent as is natural on Salt warshes, int long go for drawage purposes . They connect with the river. Love are broken from in places, affording eary crossing. Kought the length of the warsh is about 700 yos. Size and the winter 200 you -

1912 Aug 27 (3)

Observation on plants already wolld.

- (3) Potamojetan crispus do This species fruits to the mistore of July and at the fruing time, the plant won, that bordend the river a short orstance from the bouch and was very conspicious as it stretched in a wide trand, the upper part file plant just below the turface of the water, is just gove expect fragments here and there.
- (12) Puccinellia manitima (Huts.) Parl. Scattered over the merch in Nolalis patches
- (19) Janeus Serari Loisel. As far as I can see This Black Franches been entirely ent and taken away
- (24) Dolygonum Capathifolium Lo.

 The man of Dolygonum growing over the

 northers protion of the march of examinal

 carefully, and it all had permeter with applete

 gland and alemen 25 mm brown making of

 P. pennsylvancium L. I could not find any

 lapathifolium. On 703 17 I collected some of that

 plant and it was ford capathifolium and I

 inferred that it was all that species. Is as

 for as I than, Capathifolium was confirmed to

 a small area at the worthern and

Cambride Mars.

1912 aug. 27 (40) Livaria rulgairs 14th. This occurs ruther prequently in dance potables several feet across.

(41) Liveris emoducis (to) Dument.

9 have referred to the source messes of this species. 9 found to-ong an area a few roos acron that head been covered with this plant.
The plant was cut and bying ory on the surface like bay. Howard base made a fair rized cock.

(44) foliogs sempervirens h. Cebantsort at und end and scattered throughout

47) Saechain halimifolia &.

Besires the few plants some 3 ft high
alvecty noticed. I saw a number of thirty
plants about 2 ft high on the borrer of the
march about with way from norther & suchun endi-

(54) Sredtites hierarifolia (b.) Raf.
how just fast fruit. He made a beautiful
appearance lates in full fruit. There is a
ver large deure area in the fauthern bolf
taller than we's head.

(65) Echinochloa crusqueli (6.) Feaux Feather direction

(98) berbena custates L. Cecasions I. and

Cambridge, Man. 1912 (inf 27 (102) Cestie Cabalatus huchen In full flower -X Ranicum ordestoruporum bucks the following must officers. Extremely wound sut in the written balf especially. Fingle plants at least 5 fat a cross, and wear 3 ft bill.

(On Con 31/2) measure a plant and what 45 long bushing a circle of fire
across, called current of of the and a me 2 on 3 ft.) and the world X Juseda lewonin (Ell.) Mog. The potete, several feet across, by the river bank at the broadest part of the workly, and the wy place observed where the plant from , is wow in good fruits. Y (91) Seinfor conforting Golden James Golden Buttet. Fine the same spot as an Cing. 16, an area Jeveral rost in extent × (23) Poly grunn ramosissimm bucky, form attention Robusin Collectes at the fourth end, about and along me folant (23) is the species also 7 (38) Cuscula Stonovii Will). x (31) Potentilla mons pelieusis L. Drup at he end friend part frauch.

Cambrol hears. 1912 hew species from the warde -Cuf. 27 × 104 Panicum capillare 2. Frequest on morthern border -* 105 Sportina glabra hubl. var. alterniflora (kvirel.) Merr Frequent at nied of sitch (Fire 7.7. Hallas) × 105 Sparting febra well, never on pelosa ween, n. and o rich wich 105 x 106 Juneus tenus Willd. x 106 Juneus tenus Willd. missle of wersh. × 107 Polygonum pennty travicam L. Fix 6.18, 2002,112.

In prest abundance over the northern third.

9 examined many plants. × 108 Polygonum Hydropiper L. mish. non 2/12. Single plant in s. portion * 109 Chenopo orium ambrolioides L. Dump at in end, frames part of march. * 110 Salicornia auropaea L.

Cen patele, about a fort across of some 2 somen
plants in sitele in missele of warsh. L'11 Cleurthera biennis D. mire. Bot. Che. Hb. 1/ w.O., Od. 29/12. Scattered was river bank. > 112 Datura Stramonium & Singre old plant on drump, w. end, former, but of marsle.

Quennity hears. 1912 (17) × 113 Cester mori-belgie L. Single laye plant, reptveme s. end. 7 114 Phillea compliorate (2.) Die. 2 or 3 plants in mister of warch. 2 115 Xanticium echinatum hurr. Bright plant on oursp. w. end. formerly pour of marsh. A 50 Bidens frondota ho.

about at mouth of ditches and alog the river banks. Large plants. This was the place to the previous 50 ribens ep. Hower. x 116 Biren discoidea (1, +9.) Boitton Clar or two plants border of sitch near river about midway or warsh. From. 111 Sidens connata hull. Cene a two plants borter of sitch war wind about wis way for worsh, very laye. How 118 ailanthus slandelova Deof. Plant 5 or 6 ft high an warsh, s. half. Ibuned come before III. × 118 a arction minus (Hill) Bernh. North seed of march on filled land.

1912 Ceng. 31

Trip to the marsh back of Itilluan Infirmary.

I spent The morning on The worth again with top, rule + tomel. I went over the whole execut observing, collecting out thing woles on the sizes of some of the plants. The head comers we as a rule very vigorous and, as I wave noted before, many of them just usurp to bracks that they occupy. All the Jumes Ferant is cut and removed and, is this occupies at least a third of the territors, than are open areas scattered throughout. Che the west the marth Extents very close to the steep rice of the Countery Aplants ? include those given about Cen feet from where there is a very slight rise on the warsh's expl - the warsh you lented very mean, if not juice to their lue while is of cause I me what when 6 mar 9 collecter to on 48 spr., 17 being new -I saw on the worth this morning! 1 Crows, 5 006

2 Franzed Gradeles, 2 or 3

3 Red winged Blackbriss, at Cast a Consaid in a hope flocks on boder of wash + argoining proms; worse, 4 head of Kach, 2 n 3 atterny ward prent. Tubanuar Hoarrow, 2, short flights. I squalting when basles a alefating on low surel; silent.

6 Sparin Havel, 3 or 4 Joaring offing ropedy.

Quelrige huss. hoter on Species alvest recorded: Ciny 31 (3) Polamogelin crispus s.

9 still ser a little of this off the such
of the river, and a good deal in some
of the sitches at the s. end × (9) Spartina michanxiana Hitche 9 took a specimen from a fine clumps at the north end, & (4) Phleum prateuse L. Some on replieur western esqu-1 19 Junear Gerardi Loisel 9 tota a specimin for record in the widdle of the worth on the expl of a patche & (21) Betula populifolia martie organt of bouls friver and creeks. to (26) Atriples possible do., van lessate (6) Frag. Toget over the marke, on borren of creeks and were in the middle of un orea of Junear General. (28) Sepirium virginium Lo. Lez abrud aut Heraghent, Plants very laigh. The specimen letter was comparatively a bould one but I troumed it as it was to tay

(aubude mess aug. 31 x(29) Trifolium pratoure L. Curiderable in extreme w. esqu-(30) Irefolium hybridum L. On extreme w. expl & (32) Polentilla [Conterina L.] pacifica Howell men 21/15, very abundant in ortebes dalong river bank (437) Cicità bulbifera L. Vig frequent along iver bank & orteber & (39) Lycopus americanus hubl. abuntant Throughout. Y(40) Livaria rulgaris Itill Frequent throughoux. K(41) Liveria canadeuris (20) Deemant. The plants were astonishingly organs, and Cayle. 8 (43) Plantago decipiens Barneons Scattered over the wardle. 2 (46) Erigeran canedensis Lo. aboutant an extreme in borrer. Jealters over the crea-

Caulinge bass. Eng. 31 * (49) Combrosia artemiriéfoléa L. (4) Frequent on extrême w. broser. X (54) Erechteles hieracifolia (L.) Kaf. Cemeley and I should tay that it could traff of the S. balf of the area, besides being extremel about ant in close politics in the u, half - lilso fox scattered here & there. X (56) Cicorium Intylus L. Decational Throughout. x (58). Souchus oleraceus L. Very Frequent Troughout. Span laken 3 /4 high t (60) Lactura scariola do, row integrata Frant Soon Expecially abundant in the s. portion yrowing densely and very tall triforms I measured one plant 6 ft. 410 in high and of stord up but lettle above the rest. (65) Echiwelloa crurfelli (6.) Seaur. Frequent on extreme w. bother, and recationed therreflux. I in species here. a sport collide. Thereflux. I few hich 7] (81) Torapación officiale Neber Occasional. I observed two plants on the mark in S. end . They were current The me from while I took leaves Alterns was 30 m. in sian. +2 fx. ligh, and was a solid man of leaves -

Caubride ban Cing. 31 × (82) Chenoforum album L. Occasional on the worth-×(93) Radicala palentris (L.) houch. a fingle plant on bank of river untura, believe on & s. \((98) \) revolume leastate L.

 Ce number of plants in S. end, more borser. (101) Solivogo altirsima Lo. a few in n. end. 10(102) after Sabulatus Michx. abegit as high as 4 ft by nearare. *(108) Polyonum and Hot. Hydropiper L. wor 2,112. a vigorous plant on mer back midney. (118) Cilantius glandulosa Desf. Finn the plant of Cuy. 27.

Cambride hass. 1912 List of new plants on the warth. (6) Difitaria Sauguinalis (h.) Scop. aburant m w. borter of n. end. Setaria glauca (b.) Beaux Some an w. hower, > 121 agrostis was So, von rulgaris (With.) Thurb Single clump I took from the deare clump a stem and shoots - (xie J.T. Hulled, Od. 30/12) x 122 agracis hyenseis (Wolt.) BSP. a single plant on inverback in west and. 1 123 avena tativa Lo. Leverel plants on w. border. 124 Apropry repens (S.) Beaux. Clerational throughout . Record when 15. * 125 asparagus officinalis Lo: Tho plant on w. ever of s. end. × 126 hulelotus alber Dear. Single plant in w. broker. *121 Polygomme sagittation D. ruby.
Sigle plant, men border mitmag. outy order. + 128 Leersia on roises (to.) Sw. Supte plant, iver bank, n. end. out of order. my 31 × 129 Rumy slongules Sum. out forder. Saltwark. 9 here would of crispus also, and must been the comparative abunsance of the two species. * 130 Epilotium adenocaulon Haussh. Fixe Witvelense, top., 12/9/3 L Very abrumant on w. borter of bouth end. * 130a Epilotium coloratum hund a little in flumer of my fruit with 130. * 131 Clerotherer muricata b. ver. N. 2. Bot. Clab Hell. G. V.O. Cort. 29/12. X River border, occasional and some Throughout. * 132 heutle arreures L. Three a four plants lightle was iver been wirting. × 183 Solidago aspera Cix. = S. rujora mel., m. aspera (aix.) *
100 plants on wash, n. end. * 134 Auspholis mayaritacea (b.) B. T. N. Ce few plants, w. Lorder. 135 Leonto som autumnelis &: Classimal. Specimen collectio very vigorous, in center of warsh where Junear Gerardi had been cut x Hin weepend says to-day hor 16 /421, That that is 6. believes He find that The red confratales at base of bains are no character Rubercence of wide our face of less in a clearacter.

1912

Cembrioze Mass.

a trip to hewburg port mass. 1912 Bright, sunny morning, clouding by worn, racing afterwoon and evening-Sept. 1 a day with albert W. + Exitle Partial Manual, I took the 9 Au. Train, North Station for hedburghost, reading their shorty after items o'clock hu Rantoul, Estate & Wheat met we at the station We would to High It and walked to the base (85 tryp St) where I was greated by Earth and The Ranton devise. The Lorse is a large Touble one, formerly an academy, and sits high above the street, some vistance tock, Ite have is opproached by a path and flight of slops, common to both houses, the hanton's occupying the mestern tealf which belongs to a consin. The house is large and room, and there is a long strip of land behind, parts occupied by a very Maeting Sefore Times five of us (hu. K. temin, a. W. D. Plum 91hand Frith, (but of) with the electric can to Plum I sland. Ht was an extreme, interesting rive. as we lift the city closely the river (herrinae) we plassed a in of very task als searties, with a single room, just above high time level, where the claim of your Shell their claws which they get on the neighboring flats - Three people would crowd one of these little buildings. Leaving these claw huts we were som

1912 Sept,1 (2)

moving rapidly east toward the store, some two or two and a balf wiles off. On application or to the worth was the river, quite was its worth very broad and picturesque. On our right war vast stretibes of salt warsh, the grass all cut and slauting in counters cours on the staddless always there to se

ceive them.

1 Sefore us stretched Plum Blanch, numor at in parallel to the think and will war it, the channel that Separates it from the main land, being called of them bland of wer, a harrow piece of water entires tidal. Boots and steam launches pars diragle it. Our can passed oner a bridge on to the island, passed the Hum Bleud Holil and then turned write and west to the and of the island, in distance of from 1/2 will will from the point where we crosed on wo the should, This forting the island in lined with Small deap Iwellings, fautastie lettle buildings that feen to small to trove in . Keople were settings in front of their at their Ceisure class if people. The houser are surrouted by said, said, and Beach From, and most all of them have ground vames, con spicemen panels on the fronts of the bourges or on a board, fastered to the bouse. I fotted from a number of these homes.

1912 Jept, 1

Some of them are juite applicable, Mesh formit. Here is a wist;

Bobenia, Michado, & veva Mista, Comfort, leverbook Cottaje, Villa i woli Casis, Columbra Red Feather, Maunkerg, Pocahontas, Castilian, Guerian Heather Hower, Wave Court, Wenant, Ceurpert, Worth Star Vincent, Berne, Celiarles, Mary, Ida, The Iceland, Minnie &., Sea Jull, Pebble, Aleppo, Hilton, Island Home, Rosella, Beachwood, Allen, Corescent, Tokyo, Belknap Cottage, Medra, Waram, Cistion, Feirsta, Frace, Mecca, Cinnie Wosemonk, Rinkov-tei, Shawsheen, Comet (an old transformed horse-car!),

This is a quaint array of name!

the west on the can to the explorer worthern end of the island where there is a small lightbourse, this point being the sometiene bountary of the river wouth. The island is about to witer long, and its wirest, is not more than beef a will, whill at the point where we crossed to the island of is not wider than about 500 years. From this point the long sandy barren stretche ruming. South reaches to the worth of the Moderale River. I woticed of one high town times to the touth much like the Moderale Dunes. In fight y life was seen to the forth, but the explicition of the reaches of the reaches to the sorieties would cause more shauties to appring up

a trip knewburghort, mens. of the island there is a good deal of talk marsh and at the aptiene southern end is an eating home frequentis of parties who fail over. The island is in four towns, heatingports, Newbury, Rowley Typswile, from worth or south In the mode of the herriman Hour just above As mouth is a rather large pointer beacon Butler's torthpick'. " was told that Butler got a government approporation for river inprosevert, and not Rison what to do with A, spent part of it in this beacon -Wie returned as we went and well ante ready for Since - bufortunaley beary class came up to wom our on the early afternoon the vay - but prevented a sine that but been plained, by It will not be bellet and a pleasant ofice. I fort to mention that ouring our mounts rite to Plum Island It was so cold that I lead my overcost on and buttoned up to the rech the bad a wie talk surry as oftenen while Robert and albert played about. il is a hearty Rupper hu hartone of since to the Saling of lie 9 had bedden on freed protoge, The

from some alog about 7.20, I bore he houted ford

1912

Sept, 1

(4)

Cembral mass. List 1 plants collected by Henry a. Hursie in new Hampshire and Eastern Warkachundts Sept. 2. between July 31/903 + Oct. 29/90 and found away his possessions by his Sisen him Evelya Purtice after his death, and, on Capil 17, 1912, presents to me, a few spliner without data were dellinged by me. The labels are in pencil, and I have addled labels written in with. I have kept representatives of these species for my berbarium. There were 120 sheets, representing the species mention in the following list: 1 Phegopteris polyposioises Lie 2 action tum peratum L 3 Cisplemen Trichomanes do acrostichoides Si. Folystichum Svaunie (Spenner) Fee asperium Simulatum Davenp Toottie Cuckerm. cristatum Ch., Sw. - Spandorum (O. 7. müller) &D. cristation (h.) Lw. " ru. Clintonamum D. O. Eaton. Spinuloteem (0.7. miller) For. , was intermedium (kull.) D. B. Eston " , ta. concordiamen (Daverp) Eastman Cystopteris forgicis (L.) Serve. Woodia Wensis (L.) K. Sr. " obtusa (Sprew) iour. Lygodium pelmatim (Bruh,) Sis.

Clambride Mass. 1912 ours of plants collection by Hung a Kurbie. Sept, L (2.) Botrychiam ramotum (Roth) Cischers. " obliguum hubl., var. Vissectium (Spreng) Blute. Eycopoonin Selago Lo. Harfanum fluctuaus (morng) Robinson Safettaria Engelmanniana f. 7. Sm. Smilacina Trifoliala (L.) Desf. Havenaria Hookeri Tour. (astanea Dentata (marsh.) Sorteh. Volgomum mulilenbergii (he sisa.) Watson Oxybapaus myetay enews (michy.) Sweet Hesperis matronalis L. Volentilla arguta Durch recta de Yeum Striction ar. Krunus cumeata Kaf. Desmodium Dillewie Dail-34 Lespere Ruttallie Dark. 36 " hirter (L.) Hornem. bicia tetrasperma (L.) hivench. Linum virginianum L nedium (Hande.) Britton. Volgala Janjumea ... Hypericum punctatum Lam. Vlola perata L., ras. Cineurisoba De " tricolor L. Dium ciculatolium Schrauk (S. Carsonii Duraud) Chioques tropioule (5.) 1. XG.

Cembrile, mass. 1912 List of plants collected to Henry a. Kartie Sept, 2 Lysimaclie a thyrsiflora L. asclepias quadrifolea Jacq. Dycuanthemun flequorum (Walt.) BSP. virginiamm (L.) Durand & Jackson mulieum (wiely.) Hers Scrophularia marilandica L. Rhinauthus Cerista-galle L. Galium Operine Solidago Ravoii (Porter) Brittin, var, monticola (Porta) Fernald " arguta Cut. ulmifolia brulel. asperula desf. asier Herveyi Fray Senecio Balsamitee hubbl., var praelongus Greenman. Luercus

Seemed trip to a wise of Mass. Sept. 4. Main in early morning, fog, clearing, sun out bright by 11 A.a. rest of day clear, tuning, ideal Sept. 25, 1909, and visited W.W. Bailey of invisit, huen, his summer place a he went as before, (. 04 the from Such day, Sollar, reaching berridence at 70; 10.30 h the electric work from bronder a reaching Tourses a feel man was for 11. I describe the electric wood and the route before to is a pretty wer along the expligate to the shore is very rocky, and there are a number of small islands just of shore, and the ware in dotted with fails. Daily met us at I amount Hatin and we wolked over to his buse close by where have preted us. She is now will a your long the years out and a very bright, althouters jul - Turn Saile in in trividence wrete her sich mother. We sat in the living room and talked till Junes after which we four slaited off for a walk, may the walked a ster & sistance up the road and there entered the field and som were in a lovely wood where were some very fine Elms, Chestudes (Soubtless Fromed are Lay), a Splent Whete law and other interest ing trees let me time a fish Hawled Copyrig . Class we we wason

1912 Sept. 4 (2)

The prevailing rock is puddingstone, and There are work large outeroppings, James picturesque warses in the words. May both us to a case, consisten, of a rout or series of reuts in a buge, warsing boulder. Meg +Rand easily. I, with of ficilty, by a side wirewest, slepped in, where The cleft was from two to there feet wide. Some wenty feet in, you turned to the conand by a time what similar pessage emerged into the open air . This boilder was puddingtone. Hurs covered tielly The collected a number of plants To the bed what Tolanded Che Herbornin, while I shall hist at the wid . On an relian al reached the bog was the railroad track where we former found such a buy infortun seabooten i've bog for been much stains to a culture under the wear restrond imbautement, and I sid not then what effect that would been on the plants The area was very welly The ton before and one could raking wally over I. To an astonishment The Myrisphylcum was were vigorous themever and the plants were very much larger. Huas a very beautiful jugat to see This immence quentity Souls fine specimens of this race and rainty bittle plant. My cuthasiasm suco us bounds and I collected a ford real of

1912 Sept. 4 (3)

of I. wer a good deal occupied a comparation small space in up trox. [I examined corefully to-day, Sept. 5, the glood structure of this plant with the fresh spleineus. The plants I examined were monvecions und polygamans. The of flowing had a four-parts, strongly recurred calgy and 4 stamens, the 7 flowers had a four workers Calyx and a form-angled overy with a lighted stigue at each corner. In some file & flowers ! sow the stances with long filaments, 3 or 4 times as long as the orang. The plants base well-formed fruit, but it is steel green. Howar 3 was when we got it in 1909.] Sidens Caevis was seathered our the wint places in the field and in one rather wording wer There was much Ludvigia polastion pinas polustini in abundance That is a I was sold a sont de le for was folked a fort deal for my expen extenset ofen the Water milfoil, het at last I was occur away from I and we went book to the base with our two boyes well filled. There certainly was. Cen wolk had occupied about this trans and we set on the piazza, ? in a hannoch, enjaged in pleasant convertation Till tix. Then MMD, and her excort in to the station. The 6,20 train took on to Providence and the 7.30 to Boston. at 9 Klar. I was at home after one of the pleasuret Tay, this part Summer -

Tourset mass.

1912 Sept 4 (4)

List of plants collected by E. L.R. and and W. Deane in the after woon ourning a stroll with Prof. W. Bailey Hot Bailey worth of the railroad track, through the woods field and some low fround.

All species presents to M. E. Bot College repeats there marked X which were in the collection of Sept. 25, 1909. Species marked > are in beach. Wolcane.

Holy poorum rulgare L. On R. I. conflowerate in worss - mullenbergia mexicana (L.) Tru. Dy grand. (arey vires eur trull, van Luanii Fernald Share. Carex Espelina mulel. Wet ground in words. Wrisaewa treplyllum (h.) Schott. Fruit, day share in word. Epipoctos pubescens (Wills) a. a. Ecton Share. Vilea pumila (h.) may. Damp shake. Polygonim acre HBR. " " rivis E. R. 2012. 1912. " hydropiperoises linely " field. " sagittatum Lo now from from Berberis rulgaris L. Roatside Ime fruit. I Sisymbrium altersimum to. Single large plant, wester ground-Rosa virginiana mill Dy roatside. Viola pallens (Banks) Brainerd Share. Share. Shary woods. Lud rigia polustiris (&.) Ell. Soft was in wrots. - myrisplyllum scabratum hicky, For of clayer weed. abundant - Chimaphila maculata (f.) Pursh Dy words. monotropa Hypopelys L. Riele word.

19 " " Walter De and

Joen by www. Railey on Sept. 4. 1912, 1912 when E. L. Rais of visited him at Townset, 30pt. 4 Mass.

- a Bailad of Covissot -

Two commades of the R. E. Cetale, Clase morning left The famous Hule, In order chen might visit an ancient member of the Elan, a quiet, but facelious man, Ces they were travelling alone, They bought their lickets by the "zone"; It seemed to give the Crip a Cone, So " under brovidence" they came To Sailey's cottage, found him lame, So, tolk his taughter as a quite is search the forest for and wite, Sat this was after dinner, at which the sipped some juless wire, Concocled both of mine and ice, i'm beaused with boy iste gles, get, ere we started out. The boys, they looked about To see what They could bee, Cowd There on bailey's Caron They found a matricaria on the ground, a bran vew plant to me; I'd Thought it all the time Marula, Writing The rays or stacks, - a wenter,

1912 Sept. 4 (2)

But wow I must agree Their eys are sharper for their mine; Their eys on the fire on me, I we take the fire on me, I wanted a new Liegandrium That prew beside The way adorned with long and nurs poss, with swore of the immortal you. It was a true "estray".

Stell other ventures o'rd befail; itee thelped poor Bailer o'er a weell that he took failed to climbe at all, while deane within a care that the fewer the word see light. And called on they to save test he a forsit showed abide hures we to time or tide, till in remotest age. Some one should scan this page,

But grower show all second stell was your boy of my is-plushform found by Chalter Deane, much better Than when tast 'Twas seen by him and as in 1909. This' there we Thought it bery fine. 1912 Sept. 4 (3')

Though working can luim alter you strong wave seen "Our walter"

Cis sown be fell suprime

Cud cried out, "This is fine!

You could not fined a greater

Than this 'ere old seabrata,

It is the very Pater

Cof all its watery tribe
Centalt F. L., The Scribe!

The lay of fair Touisset.

W.W.B. Sep. 28, 1912

Tousset, Mars. 1912 Sept. 6 a Ballad of www. Prailey written to (1) : Commemoral Sept. 4, 1912. a Callad of Doane -We had not walked Ce mile, a mill, a will but barely Three. When we observed Deave wore a smill; a beauing smile wore he; The myriofolyllum bog be saw, Cet once he gave a luge guffaw, His heart was filled with glee. The dear, delicions thing! he eried, How precious 'tis to me! "Had I this boy was (Soston town I'll best a dollar or a crown, Each fellow of the telula would fil His varculous collecting till No Harora rous spike lemained to much where one is the beauty reguld. with this or a wanter Then is alias Into a big 3 cubration bed, As Cost his below! 2

1912 Sept. 6 (2)

in te feil suprise; Met's on his back. le may be was not alone les may be we had fallen prone. Cond get no und unto bein stuck Cef all the Myriofolyllum muck It was so clean and vice, He filled his box and Then again Schold, be crammed it twice! Withal I had proposed to say Coovenaines strange he had that day, that squeezed mid-way a care. and scratched his watch Cow Little 'Cum' in I almost wished he leader come, To sur This truthful stave. "

The fight of Jept-19,2-to a fort Caftsum one w. w. B.

1912 Sept.12

a trip to the much both of Stillwan Infirmany.

This afternoon Tronge & 3 spent meanly I have on the worth. I task with me my bolamy, by, trovel and a rathe. The trip was as interesting as ever. I with the plants previous & observed and, as usual, I collecter a first many, several being new to the much according to my obestivations. Tall is now fast setting in and vigelation is fast orging while a few take species are flowering - We traversed the entire length a just frant of the way . The main area of the words is getting burren now, The your including black war (Junes Serardi) having been cut and removed and the large areas of fecture scariola, var integrale onced with the reped of your plants. The Firewerd (recleteles hierarifolia) which also occupies extensive areas is fast theming off its fruit and ear long, will be dead -The rube was of a post deal of beef in ter the net places. Frequents of Volamogethe crispus linge on the inser border, while There is a man of the recogning plant in one of the other mean The southern end, I sont their I can coiled much work, There are Itill a number of species doserved Trecorded that I have no specimen

Comorage, mans. Observation on species alread, recorded, X = specimen collected Jept: 12 (1) Typha latefolia L. This okeurs at several practs in the week along the sure and in a vitch Atter south end and in a voet place in the wardle. There was considerable fruit carlier but it by been Taken. (3) Polamogetan crispus to. stell trujering of there, and very about Tank in decerning weren in one still at Desillare Catifolia Willi, see hastata Dust Hoberton Presumably the form from setate. S. end-Spartine paleus (lat.) hull four junco (hully beloke harsh m. holf . Scatteres Phalasia and months of a catteres × 13) Pholoris armornacea to a clump, several fx. in draw, east end of center Els Lemma memor L. Cebrus and in sitch, south end. x (22) Rung crispus &.

g examined carefully many plant scallets
over the wathr where it is about out of find the two species vispus telongalis about qually distributed.

Cambridge, Mass. 1912 Sept 12 X (25) Roly form Ressicaria Lo. Fide B. I.R. Wm. 2/12. On wash was border -× (33) Rosa regora Thunk. A fl. spur for shows of July 17. (35) Spilobium augustifolium Lo.
One or two low plants in certis of march. × (42) Plantago major Lo. South and frank & ortelan X(44) Solitago Sempenirens L. Frequent, ruele briters. 1 (47) Caecharis nalimifolia .. There is much of this strubs along the torse of the river and of the orteh A J. end upt the Cemeter, A running n. Os. sort sepes are und in flower x (52) Ciclillea Millefolium Lo (63) artemisia ruegain do. Abundant of mode land eoge of march, when where was march frome. K (58) Somehur olerace as Lo. abundant one ward I examined wany plants and found all their this., Even Some with juite rounded leaf lober akenes originate

Cambridgehass 1.912 Sept.12 (4) (67) Runey Actosella B. X (80) Cirliam arrense (&.) Jeop. Several finall pleub, ortale broter in centre * (86) Alisma Plantago-opuatica L. river month of sitch about nitroney.)

* (107) Poly forum from ty Councin Lo. sic B.L.R. horz., 1912.

(128) Leersia ory soites (L.) Leo, Large clemp & walk on sore of most.

* (67) Familian richotomifforum hicky. her siner tota, mirray, I small plant.

Men Species. *136 Zizawia palustris de.

Severel plants in sitch, s. end. 8 pt. or more tall

*136' Pobygonum exsertiem Swall, men border of warsh, tion 3. k.R.

*137 Plantago Kugelie Dene.

horth esge of warsh on filled land. X/38 aster worder anglial do., var. roteus (Desf.) De. North rote of worth on filled land. single plant 189 arter riminen form. Several plants scarters over the worth.

Cembrige hars. 1912 Sept. 12 x 140 Biden cerue L. River bank about rudway. several plants. * 141 achilles Millefolium ds. Sorder of wardh. One plant. × 142 Clergson themen Lencontemum L., vor.

piumatifismum Lecon & Lamotte.

with end on filled (and.

L'ambridge, mars. I his afternoon write the air crisp and the sun breaking through The class often several heavy duys, m, + 9 toh a walk to the marsh beek of Stillwan Infirmary the strolled over the worthern end and went on withe large mound of barrow soil by the river trested up and past there some years ago - motor boots were plying up + 5000 to stram, the luge Hadrium rose before us seron the river and rast warsh extending from our feet make a most cellractus scend. The begelation on the worsh is fast passing hotes in species previously recorded: (3) Polamoreton crispus to. abrendant afaint the blove, n. end, where it has orifted, laving broken from its base.

(19) Junear Feranti Loisel all cut tremoved,

X (38) Cuscula Evouvii Willd. Fruit on Casen monis belgir L., Occasional.

44) Solidags sempenvieur do. Scatterer plants in flower on work

1912 Sept 22

Tisit to the Elbares River heards.

Combridge, wass.

1912

Sept. 22 × (47) Baceharis is a clemps on the in end
on the work. The B fl. were by the F.

are showing wore and were peoples.

(87) Panicum dichotomissorum buells.

This plant is and part & dead.

× (102) Askin Subulalus hicher

In fruit
× (113) Uskin word belgin L.

Several plants on n. end.

1912

Sept. 25 This oftenom, with the air clear and erisp, and the bun shinking brightly, I walked sown to the Colores of ine Twarth and wantered over a large portion of to, some two-third, examining The restribution of plants over the area. I found but me new plant. Tolidago vemoralis Cut, on the much in the northern part - Lachica scariola L., ron integrala Gran. + Soda, has thrown it fruit and the plants are read a bying. Trechtetes bienacifolia (h.) Not in rapidly rischerg. ing its sund-white pappers officer, and as 9 5 walked through the deade aread speapies by this plant growing over the grass covers warly, The area was sum-white from the follow pappus. I observed that scarcily any species is clearacteristic of the border of the ditches that traverse The worth at prefuent intervols. These that So grow there and near the water by the civer bould Plants character by the civer bould Plants character of the working the moisture. Those that I note one totantilla Cuserina hy, Bidows (var. eps.) and Such the as live in a pour in wares, aleswa Plantago-aquetica L., Polamogeta sps., chiava minor. Sajettaria sps. Typha latifolia L. acuita comundina Lo Mais flexilis (Wills) North & Schude, Fisheria palantin do. (There wasked x are not on rion bout.) 9 notes today a number of plants not particular notes before as proving directly on the mark areas occupied by The Spourteur + Juneur Gerardi. 9 will list them in the usual was with Oservating:

1912 Sopt, 25 (2)

- (87) Parieum Vichotomeforum huely Scattered over the areas covered by Spartines & Jumen Generi. When growing on the gran hing the plants are smell - I westered one clump on the n. border on clear toil. It was 10 ft. in viam. and of ft high.
 - (21) Betala popolifolia March.
 This tree grows on the warth any where, either on the river border or on the grassy areas between the siteties. In my ruse of July 17 (3), 9 was not broad wayle.
- (27) Runey crispus L. Scattered fouly our the whole wea.
- (129) Kumey clongators Surs. Same as R. existens.
- (71) Rumen Acetosella Clemps of your plants of basel leaves from in the from cut areas.
- (26) Cetripley potula L., von Ceastata (L.) Frag Growing in the grows cut areas. At Lecun as if plants growing this way would find it has to take root the grown is to mutted.

1912 Sapt, 25 (3)

- (31) Potentilla monspilianis Lo. L'afred leaves on the gran-cut areas.
- (29) Trifolium proteure L. On The grass-cut area.
- (46) Erigeron canadensés L. compact Seatterer ora The dealy tuffen frany areas.
- 48) Snaffleation polycaphalaum micha. Very about and vigorous one the variety tufter compact grassy areas as well as in more spen toil.
- (81) Tarayacum officiole Weber ham plants on the deusely compact grass areas.
- (58) Sonclus oberaceus L. Cibrustant over the starely compaet grassy areas as well as in more open soil.

Cambride ban. 1912 I collected the following, observed before: Sept, 25° (4) ~ (8) Spartina paleis (aix.) bull (Fix 7. i. Hobbard, God. 30/12)

2 am interested in this form, that is abundant where I beened it at the worthern end. The plants are very low and have attamed Their full growth - I got a fine splen of rootstocks - Plants collected in the mitale of July are very well taller. x (88) Distichlis spicate (b.) means. I observed & specimens in considerable wour-I collected today spelimens write leaves only. x (103) Polygonum assisse to, prolificum (Small) Rebisson tide 3. h. R. um. 2 /12. & (54) Dechites meranjolia (b.) hag. Or specimen is The fourt. Lee note Seft. 25 (1). x (55) Cirsium Cauceolotum (b.) Hill. Fruiting specimen on worth, n. end, a few plants or a worth. new Species -X 143 Solidago nemoralis Cut. 1912 Sept. 28

Cun uptransviang floch of Irowsed Grackles.

Us I was wolking one the Charles Him march I would det a very large floch of mostler was assembling in the tall trees bordering The western supe and then flying soon in props on to the hield field and The osjoning from I. I worked over due and was asionisted at their numbers. Conservative as we welle in making estimates of municion 9 00 who feel any besitation in tay in that There were it Ceast one Thousand borts . They were juste Come and allowed a war approved, The person bis flyin, alread and alighting further on they covered the northern end of Nichols Field, running clay on the fence and swarming in the working yours Ites tower the western site of the words. as I approached a gully which carries off the water by a system of Trainage from The ruleds field, which was a very taup Spot ut very wany woulds up. The burd at we approved rose in a block clowd, only to alight wear the at vance guard of this plast flood. They were busing end showed little inclination to bone - I fively left them there-

Cambrioge, mass.

1912 This morning was crystal clear and wild Sept. 28 (1) and I went all over the Coleanles Wiver heavy with turs. T. N. mchillan - I have us had observations of importance to record. Whereas a few stretches of much in the patens (Cit.) mull and juncous on Juncous Gerardi Loisel, are practically a juite from other rejetur tion, The great bulk of the ares over The worth are conced with raining spessor of other plants wooding the areas formers I devolt to the two species above wentimes. These two species still ever wort of the area, but they are juste oblived when the unading with is in full bloom -Vegetaline in fast breaking up www, and I cannot so woods more this seasons.

notes on species alter, Stever.

(3) Potamojeton erispus &-Hosting in great abuntance men the stare.

× (91) Sciepes competers Britton, var foundsi (Buthall) Bertlett.
In very ripe fruit, same station i tand. 100.25/1244.0.

* (?3) acuirou camabina L. In port fruit, vittle, south end.

+ (79) Tanacetam rulpare do. Fruit, s. end. a cleent of several plants.

(ambrige, hass. 1912 Jept. 28 (2) 1 (56) Cichorium Intous de-7 tole a flowering specumen in s. end-*(55) Cirtium lanceolation (h.) Hill Flowing Specimen in s. end, jum a very large plant mainly part foreit hus species -× 144 asien Careriflous (1.) Sritton a much broaded plant, re- sprouting in the mutst of the march, where it had been cut four with the Juneus Ferant's X 145 Helian thus lastiflorus dess. ver. 90 lah. y me Ocx. 29/12.

7 saw two vigorous plants grown, close to gether on the expl of the worsh at the s, and If the the tip and a section just below the wistle of on plant. The flui leaves below were like these taken. The plant was part flower - Juse Bok. R., may 13/10.

1912 Oex. 2

Charlesfully, clear, calm and bracing.
This morning I west TR. Churchill at has bottom office as of 11.15. after leveling we look the 12.40 train, South Station, for Proving there at 1.53, and connecting with The 2 P.bu. electric train for Townst, which we reached on time at 2.35. The trip was to introduce T. 1. C. to my vio physlum seabrateur which he had never seen. A short four minutes work from the station takes one to the boy that I have visite tooice before, on Sept. 25, 1707, and Sept. 4, 1712, both times with 8. h. Mais + W. W. Praise, and on the catter occusion with may baire in addition.

The judge was over jed at seeing such a tryrisphyllion we atthe of the Water Misfoil and we spell scatomain a very designifical have and a least on the opport collecting this most attractive cettle plant, sives a number of other species in the imperial injuborbood. The never were work work than a few root from one aport.

The My intologicum is in funer contrition then wer, the posts layer and in fine fait. It comes the boggy area vite a bear light year sward would would be juite continuous except for cow tracks over it. The celout recently built under the controls of the electric rood close by hes traces one much the crea covered by this plant, where feet sinh sweet inches wito the

Trip of Triesest, Mass. GH. 2 mus, stamping of the plants, is sooming (2) The plant to w isesmally over extruction. The hunispregular in from on a thick, clayey was, unoccupied by any other regulation, as a rule, and the wind, when squeezed by the how retained The form fiven it, and scores moistens the hand. The must seem doughy. We coclected some intersting toggonums and frence and we found very large fruits in seeds of Keltandra, besides some other of all I tothe with me. I shall list the Upecies collecter. We win the 4.13 electric book to From. Dence and the 5.10 to Soslar. The many view of the deep blue water were explusite, and we saw between Tourset throwienes well Poisa Dogwood in deep cotor. I left T.R.C. at the Soch Say Station in in Sotton at 6,20 (on aim) and reached lime at 7 Her. read for supper. There was not a stop of water was The bog out I speak from time This evening washing my plants and felling them ready for the yores to morrow -I should Fay that the Myrisphyllum reabsolum Exent of comes a half were, a laye portion of obstacles huzriophyllam near the railway embaukwent occupied by the plant seabratum alone, the june beyond being covered more throng by other Cow vegetation.

Trip to Townset Mass. (3) He boy by the track were the station or on the warpin of it. ho water in the boy. 1 Kellandra virginica (L.) Kunth Fruiting plants - In wood, no open wow. 2 Junes marjinatus Rostk. West sandy border of boy-I Juneus articulatus L. Sants senting out runners rooting at intervals. 4 Cares virescens hubb, var. Swanii Fernald. Santy borter. 5 Polygonum Hysropiper L. 6 " acre HBK. 7 "hysrspiperoises michx) Sog mont muddy soll, Live B. R. R. non. 2/12. 8 Polygonium scandeus Le ries. C. 2012, 172.

Sorder of boy. 9 Hypericum mutilum L. Forety plants, sawy borter, leaves red. 10 Ludrigia polustivis (K.) Ell. Bog on mud. Dead ripe.

Trip co Toursel, Mass. 1912 (oct. 2 (4) 11 hugeoffleytlem scabiation Michy. This very dointy and clevice plant is first. The plants welwyer than 90 Tibbe ever been Them, and they carpet the surface of the bog in places with unbroken green. I have spoken of this plant in the account of the day. Bideus Caevis (L.) SSP. on Sept. 25,1909. & Sept. 4,1912 is now in fruit - Bor -13 Junes aluminatur Michx. Sawy, worst, border of bog.

1912 (ex. 5

- Trip to Celeates River hearth -

It has been a wonderfully clear calm, worm summer say - This morning I went down to the much again this time with a rake to become one or two water plants. I was goined by a Harvard student, arthur Benden See y Cranford N.J. He was taking a convolerceots walk from the Informany where he had been belowing his Coursels removed. He is a Junior tearing entered in 1908 but leaving been howoreapped of illuers. We hept together during my trip and I enjoyed turn very well, while he said he had the. roughly supoyed the week and talk. al peet. Cista novi-belgie, Somelus oberaceus, are in flower, Though most of the latter which is widely seathered over the area has gone to fruit. I have examined the allever in van for D. asper. There are warren of Holewoodlan crispus floating along the close of the river. I was too late in riving. ing the plants this year to find out whether They flowered and fruited. My first visit I was there before. The wash is part of the melispoletan Haule and, at any time, The area may be taken and turned from its present Condition to more fasherable uses - Fulica am. a Julier americana was on the river were the store when not file. Cost. Cembroje, was

1912 QX. 5

(2)

Cobservation on plants poerrus collector or wold?

Volamogetin cropper to Trassed in floating patches along the store

(47) Saecharis halimifolia i. The Herebs are fruiting but base wor yet ripland. There is no south according to he. le.a. Davis with whom I Talked Cet 4 at me Sol. Bluke weeling that The plants of this species growing on the worth came from seed from the flants along the burder of het. Olubur H. i he's in extens from the fort of Sparks LX. over the iron fence I we distance toward I taw Thore to W was set out some good of a

x (90) Cyperses ferax Richard. and is wow very ripe. I took some in the grows on the mefering the booking of the sitcles & river, at also

true Species 4(86). Ulisma Plantajo. aj natica to-Rant with flooling Ceases at much of ortel, same locality as specimen of Soft. 12.

hew I peacer.

X 146 Poulederia cortata L. Scuple plant with two leaves in water war shore, in end.

Cambrill hass 1912 I went over to Blooker River march their Cext. 9 now for a short time - I wanted to see if the Saecharin was in fruit - It is not get and I found the allenes still soft and lightly enclosed in the involuere. The warth bos a bare woh as the plants are were and was Tying-I collected a few plants noted before *(38) Cuscula Fronovii Wills

9 both a fruiting specimen on Bacchains
halimifolia at the n. end. x (47) Saccharin halemifolia Lo.

9 toch a specimen at u. end 9-24 is
approaching fruit, but see note above. 2 (56) Cichorium Inthus L. I took a flowering bit on work, we end. (61) Lacture canademin L.

I found a plant at the un ead, very
large stemmed, with inaug branches at the 5 feet high that fruit. I look a hit for verification.

1912 Oct. 10

This afternoon Groye & I wolked from to The Charles River warth and strolled out as far as the laye gravel beeps at the northeast end. Savama Sparrows were fletting from one low cover to another verse were faiting from one low cover to another verse birthes. He was very veroms y active in some birthes. He was very veroms y active, fletting about and mercenty jerking his tail to & fro. We oid not than long.

- Planto premions & observed -

×(114) Pluebea campieorata (L.) De. I with a plent in jord fruit on the w side and saw several in the w. part

hew species.

X 147 Populus tremuiors hichx.

X 148 Rhus typolina L.
I found at took a small plant streets on the warsh
in u. part. Law a few orther on w. side onfilled land.

1912 West. 13 (1)

The say bers been very beautiful, were t Sunny for the word part and pleasantly evol. Mr. Stephen Thacker & I went to Milton (11.55 A.m. - 1.40 P.m.) to the Kachel-Keed House to visit This margeston on our semi-annual trip. The were just in time for dinner and were wormly greeted by all I met him hay esson, This rement, This Flier, This Chardill (couring J.R. Claudick) who lives near the Lower wills, min Du Pay of Corie, Ma. I one or two others. Upier a prestant sins ver, him hayesson, him Termant, and we two look our usual stroll in the Reservation. This time Changing the great clearm was in the colors in the trees, foliage. and The Taller & The small shrubby vegetation. while the walk bulliant colors were a wont en upo, There were wonderful, beautiful to-day, more subtred us a rate, and get in places in Their rearest geory. The rich waron of wany shalls of the oaks, the russed brown forthers, The red gellew tyreen interriped of the maples, the yellow of the Sussafras of which there are is first) The res of the blueberry and the many variegaie patterns over pour, all combined to mote a very beautiful effect.

We tread one robin and one tradition and Katoris

I saw one Stockpoll Warbler -

Out our return we visited him bose's hen I va xam guids were The Iva Xanthifolia has been so thiplie very about ant, and where on many 14 last gove, I found the ground televally covered with beedlup.

1912 Wex.13

To un surprise I found no trace of the plant - The ground formerly covered by the seedings and last year by The full-from prents is now covered with weeds of various kinds, gran is eucroaching on the area, and very evidently The cleaning conditions have choked out the seedlings and the station is lost, Ou reactor, the buse her. Thacker & J called on The . I hars, marghall who live ofposite. his warshall is a rule of the talk author of ion Brown at Rughy, Iom Hugher, and she has a splended library formerly belonging to the proat pranounter, war aret Hagber, with whom fir Walter I cold was very intimate. hour of the books were presented to ber by dead who wrote his have write an inscription in them - I longed for more lime -Cefter a pleasant supper we left our fort friends and reached home by go'clock, he hacke took with him a very targe bould of brelleast foliably as mirette him margesson had slipped for we from a plant of tiers.

1912 Oex.15

This morning ? once more visited the Belearles of wer march, this time to inspect The Bacehoris and see whether it bad at last set fruit. I went to the potch on the river boster at the north end, and was much pleased to see that many of the involuces had opened entirely and thrown off their ripe, wings askenes, bush ripe fruit was still clerifing to The plant and march of the involuces were not yet open.

- Riands observed before -

- (90) Coppered for at how in dead ripe fruit. Spikelets crumble firm the chacker at the truele
- (102) Cester subulators Michy.
 Whose long bean in fruit, but The akends
 infler with white papears still remain,
 giving the large areas, covered with this
 plant, a whiteward appearance
- 1 (47) Buccharis halimitation L. In sipe fourt of Coth specimens from the clump at the unewd, was
 - 9. have visites the march this season 14 times -July 17, 19, 20, aug 16, 27, 31; Sept. 12, 22, 25, 28; Oct. 5,9,10,15.

Cambride, mass.

1912 Oct. 20

This woon I strolled over to the Calcular Hiver worth bock of the Stillman Infirmary. The Lun was warm and pleasant, the are was clear and calm, a motor boot and a fail took were playing up stream and the scene was most attractive - The growing season is over and The late fruiting plants are respectly orichaying their seed for rather alleves for it is the Composition and Opperus that seem to be the last in the field. Taraxacum officioca and Louclus oleraceus stell linger in flower their flowering and founding period seems to end out with coldweather. to the feet out of shall regret the lime when the place becomes a park. The Eucroachment of the weeds in lays paraultes and in a heart array is culting Rilling the grass as the curtin of the much shows when the weed have broken up anticod The supper.

(1) Typhen latiforia de:

9 with for second a dright ley from a path
in the view off the water end. The was paint
soulin in the feature 1 of it was in then every trong.

149 PolyArtichum commune & (Fire 1916 Mars) in whole and a following the commune & (Fire 1916 Mars) in whole and a following the commune & (Fire 1916 Mars) in whole and a following the commune of the c

1912

This afternoon 9 strolled som to the Travel of Charles River where I have been so many times This season - I met Emily Chapman and the accompanied we. There is a decided fall as peet to the place wow and that little signs of life over the wide area. We kept in the northern part and yourined the regulation mo part. Sacharis halimifolea has opened its involucres and The winger akener trabe either from over or are ching in an inorschiminate dolute mass lotte bushes. The seen had set on) The air was fresh and cork. a work boat skinned up the. river leaving a conf worke belief which caused & mail waved 17 brown on the shore. The mounted the pile of gravel treoled out Some year ago and watched the scene for some time before returning tome ,

*(47) Bulchair balimi folia do.

? took a pocket of fruit clayer; by the clay in the northern part ware I with a specimen on lot 15.

1872 6et.30

This the. I spent the bour before touset on the Clarks River warsh. It is a wort beautiful hom when the sun, a ball of fue, leaves over but Century tower and the vege-(ation has taken an a sombore have. I walked to the extreme Smitheren end of the warsh to inspect a few plants. Scripus compestris Bullon, Jernaloi (Bickall) Partlett

Fruit fledling off - I tolk a little ocadripe

Sparting poleus (Cit.) huble This species is the most abundant, covering laye arees with a deuxe sward. It is low with wing very worrow leaves and juste upright spikes.

Spartena palars (Cut.) bull, var funcas hickx.) Hitelie. This large from with spreading, much broader leaves and were spreading spikes, and stout roots tocks in ocaltered, never in a west, het a few plants been there -

Heliantins Caetiflorus Pers. I visites the sport, extreme s. end, where This grew and from about 24 plants, most of them young - There was the remains of one flower that left on Left 28 - Oug 2 plants flowered -

Typhea latifolia de. 9 found fruit, s. end, & spike 2. 5 cm in oriam. Leans 18 mm. Wood.

rectines by Hef. Hugo De Vries.

Boston Evening Theretoft TELLS ABOUT PRIMROSES Professor DeVries Speaks at the Lowell Institute About His Own Experiments

The lecture given last evening by Pro-fessor Hugo DeVries—his third—in his Lowell Institute course on "Evolution of Plants," was a pleasant ramble for an hour in his own garden attached to the University of Amsterdam: It was the story of his experiments with evening primroses, the work that has made him famous.

In a field on the edge of a forest this In a field on the edge of a forest this Dutch botanist one day found a very large number of evening primroses. These are yellow flowers, not related to the other primroses, which open in the early evening and remain open all night. In the field DeVries noticed some of the flowers distinctly different from the others and took them home for experimentation

What he discovered through long years of investigation is that of the evening primrose of Lamark (O. Lamarkiana) if the flowers be carefully pollinated so as to exclude outside mixtures and produce a pure race, ninety-eight plants from every hundred seeds will be regular, one a dwarf, and one a bending form. This proportion held true in years of experiment. The dwarf will breed true, and produce only dwarfs, but the bending one must be artificially pollinated, for its own pollen never neasily pollinated, for its own pollen never ripens. Other varieties, mutations they are, have been observed and one, a giant, has appeared once only in all these years. It-has been bred, but its like has not come again through nature. One or two other forms are likewise rare. This is evidence that Darwin's small gradiations between species in their evolution one from another an error, and that new forms are pro-

showed in abundance, presented every phuse

of the plant and garden

In his university garden a large space is walled and roofed with wire netting. Within this are the beds, the different groups being separated. Various devices are used to prevent undesired kinds of pollination. Paper bags are placed over the spikes of flowers, and for some plants an insect-proof wire house is used. One part of the garden is roofed with glass but with ample ventilation, designed for the older plants whose roots strike five or six feet into the ground. and which need no other moisture.

PLANTS AND THEIR ENVIRONMENT
They Do Not Change with Shift in Loca-

tion. Says Professor DeVries

Professor Hugo DeVries's final lecture, in Lowell Institute course was directed against the idea that environment has anything to do with the changes of form of plants. In the distribution of plants this has been used for an argument, but it proves to be unitrue. When studied in large divisions of the world few plants are to be found outside the divisions to which they belong, although some are to be found in contiguous parts of two divisions and the study must be made both of large migrations and of the small ones. Some plants were shown on the screen with very small distribution, while others, like the sage bush, have wide distribution. The argument here turned rather to the suggestion that these plants are desert plants. not because they will not grow as well or better in moister climates, but because they are better suited to the places in which they live than the other plants. Environment will kill off plants to which it is not suited, but it does not affect those which can survive under the new conditions.
"The human species is older than its en-

vironment," said Professor DeVries," for it existed before the glacial period, and the same is true of many plants and animals. The swamp cedar is an example of this kind. Its fossil remains show that it is practically unchanged, but at the same time it is living today under very different condi-tions and in the midst of a different flora, most of its ancient companions being now extinct. Life conditions, therefore, are not due to adaptation. Plants like other organisms live in the midst of a constant can maintain rather than the ones ideally the most suited to them. The

desert plant which would do better in moister places is probably pushed out by other plants that can do better still in the

The water pest, a river weed, came into Europe from America seventy years ago. It is all over the Continent. It has merely adapted fiself to new conditions, but is the same species. In the same way a salt weed which came to America from Europe is widely spread, professor De-Vries having observed it on the shores of the Great Salt Lake in Utah. The water hyacinth is another example. It came from South America to the South and has homed itself in the rivers so well that motor-boats and even large steamers cannot make their way through its tangled mass. It has not changed in the least. The flora of the Sahara Desert originated when the country was as fertile as any other portion of the world. The withholding of rain, which has probably been by slow stages, has caused the dying out of many kinds of plants, but it has not made any change in those that survive.

Four lectures on Plant Evolution given at the Lovell Institute Boston, nor. 30, Dec. 2, 3,74 /912 Professor Hugo De Vries -

Boston Evening Transcript Dec. 2.1912

DARWIN AND DE VRIES

Dutch Naturalist at Lowell Lecture Says They Differ in Only One Point-Tells How He Makes New Kinds of Flowers and Doubles Single Ones

The opening paragraphs in his Lowell Institute lecture, the first one of his course, by Professor Hugo DeVrles of Holland, were to explain the difference between the views of Darwin on evolution and the riews of Darwin the control was far different from those who have in recent years expressed little respect for the views of the great English maturalist. "In the main great English naturalist. "In the main noints," he said, "there is no difference be-tween us at all. Darwin believed that specles were evolved one from another by small changes. The observations that I have been able to make point to sudden establishment of new species." This was the text of the lecture and its illustrations, and the suggestion was made that botanical species are usually not pure. When this is the case there is constant tendency for one or another of the elements to gain the ascendency and dominate the species.
There was quite a bit about Darwin in

the earlier part of the lecture which showed with some of his deas established them-selves. He was a great collector of facts, but did not collect specimens. There are known today many facts that were not known to him and his study was in considerable part, in the voyage of the Beagle, that of islands at various distances from a coast. He found that species always had velatives on neighboring islands or the mainland. From this he established his relations of the species. He studied races and species and found that the limits between species are arbitrary; there is no such distinction in nature

The speaker outlined the earlier condition of the farmer, who, finding good wheat in his crop, selected the best for planting next year. It has been possible to improve the grain to an extent and after ten or perhaps twenty years a permanent change may be made. This was a tedious process, but it was about as far as agriculture had gone. In horticulture a similar process was possible in shorter time, four or five years. Today in the study of the matter, pure strains are possible which Darwin did not know about. The speaker then turned to the experi-

ments of Nielsen, a Swede, who found that the slow Darwinian evolution did not suit the facts, and a new explanation was neces-Sary. He pursued the general idea of agri-cultural selection of seeds, but used closer observation and brought the microscope into requisition so that selected seeds might

even have the same botanical markings. He found in doing this that it was the plant with the single ear that must be used to seed from in the future development of pure -The usual ear from a group has In it many types and the production of pure strains consists of eliminating minor ones. It is evident that what are called species in nature and consist of mixtures of many species. How this originated is not yet known, but the fact is well established.

DeVries took the matter up here and in his garden has carried on the experiments that have made his the world's authority in what naturalists term "mutations." Much of the lecture was devoted to an butilining of his own work, which, as he expressed it, was to see species originate under his eyes. The first story was about the toadfax. This in general is a flower having two flaps or jaws, within which the bee must pass to get at the honey in a feep lower spur, and in doing which he solinates the flower. It was known to Un-racus that in the neighborhood of Upsala a close variety originated. Every eight or ten years some such observation was made elsewhere, and on these occasions there came suddenly into prominence a form of flower which normally was known only once in five to ten thousand flowers. It was seen thus in Germany and in Holland. was this phenomenon that DeVries set out to repeat in his garden. The flowers are to repeat in ms garden. The flowers are very different in appearance. One had the Awo lips, between which insects could easily lass, while the other was a closed form which was impossible to them. For eight years the Dutch investigator worked, when there came a form in his group of the gradations but at once, and it is perma-

A second experiment was with twisted plants. In various kinds, horsetails and beasies among them, there come occasionally forms that are twisted. The leaves that may normally be disposed at regular intervals, single or in groups, may combine to form a continuous spiral fringe about the form a continuous spiral frings about the stem, DeVries set out, to make a twisted anapdragon. He selected this kind of plant because there is known to be some re-lailorship between monstrostics. His re-sults were successful. Ofter plants, like the teasies, he has cultivated with the same peculiarity. He now makes littles with the petals iwisted about the stem. An interesting story was the making of a double marigoid. It alone of the chrys-authennums has remarked single. It was a authennum has remarked single. It was a

anthemums has remained single. It was a work of four to six years in the selection of the proper flowers and from a normal in the beginning of twenty-one petals the double flower has been produced with constant number of more than two hundred petals. Much of this story dealt with the way in which the new petals come out, the stamens changing to petals in certain of the flowers.

The lecture of Monday afternoon will take up horticultural variations and will come to his own work in the significance of mutations for the origin of species

WORLD DOOMED TO STARVE

Bitstin Evening Transcript Professor DeVries in Lowell Lecture Says This Will Happen Unless Agriculture Can Save It-Population Will Overtake Food Dec 3.1912.

The importance of botanical researches of the kind in which he has made a name for himself was shown last evening by Professor Hugo DeVries in his second Lowell institute lecture on "The Evolution of Plants." "The future of the human race," he said; "will depend upon new foodstuffs for those now known will not suffice to support it." He stated that the increase in population, if continued at its present rate, would more than overtake the increase in food production at its present rate, and the time in which distress present rate, and the time in which distress might come is not very far away, a century or two, perhaps. There would under those circumstances' be really a struggle for life. The resources of the earth are being quickly consumed, coal is almost exhausted, the forests are fast disappearing and agricultural work, if it is to save the day, must be greatly improved. In the United States about one-quarter the sail is under cuitystilm and for the

of the soil is under cultivation, and for the

of the soil is under cultivation, and for the rest there are the difficulties of deserts and of irrigation. "If it were possible to grow things in the desert world," said the speaker, "it would be very desirable. At any rate, it is the agriculture that Is in the foreground of public needs."

Hybridizing is a means of getting desirable qualities scattered through different species assembled in one race. The best of horticulturalists apply this principle. But in selection there is a comparatively small number of factors with which to rake improvements, and in hybridizing there are a small number of known qualities to assemble, so that one can realize ties to assemble, so that one can realize that there is a comparatively near limit to improvement due to either or both these methods. Future populations may demand all that both means have to offer. It is not to the point to argue that two or is not to the point to argue that Iwo or three hundred years is a long ways ahead and is not our concern. It is the duty of science to foresee necessities and provide means of satisfying them. It is the duty of the present dweller on the earth to di-rect his eyes upon what nature has done and what it is doing and to try to duplicate this work.

The speaker suggested that the leaps in The speaker soggested that he reads in species, termed mutations, must be studied so that by the will of man and the forces that he may control he may be able to induce such mutations. This has been done already, it is true, but only in a few lines. Progress is needed in many lines, and there

Progress is needed in many lines, and their is liope in those for the future.

The final discussion for the day was of the four-leaved clover, or, rather, its allies, for it is indeed not normal and will not propagate itself. The real normal change here is to the five-leaved plant, which in its turn by various divisions of its teaflets. may be a six, seven or even a ten-leaved

american Consthologists' Union Cambridge Mess. Thertieth Meeting, november 12-14, 1912

Bird Welfare-Workers in Session

Some Notes of the A. O. U. Congress at Cambridge

BY WINTHROP PACKARD

HIS week surely the Cambridge birds, such at least as modern progress has left us, should have sung their best songs in Jubilant chorus, for the best friends they have among men were assembled in the University City. The American Omithologist Union held its thirtieth stated meeting there, converging several hundred strong from all parts of the Union and making from all parts of the Union and making a week of it. Daily there was poured forth upon the members, their associates and friends, such wit and wisdom of bird lore as has been accumulated by the enthusiastic students of bird life during the past year, the store appealing to the eye as well as to the ear, for the sterooption did its share in making the matter instructive and interesting.

Ornithologists of more than national prominence related results of explorations and investigations, such men as Frank M. Chapman, curator of the Museum of Natural History at New York, editor of Bird Lore and author of many standard bird books; Edward Howe Forbush, State ornithologist of Massachusetts, widely known as a lecturer on the economic value of bird life and the author of several scientific works on the subject; A. C. Bent, secretary of the Bristol County Academy of Sciences, to whom has been entrusted by the National Government the completion of the monumental work on "Life Histories of North American Birds," which was begun by Captain Bendire; Dr. George W. Field, biologist and lecturer, chairman W. Field, biologist and lecturer, chairman of the Massachusetts Fish and Game Com-mission; Herbert K. Job of East Haven, Conn., author and lecturer on birds; Pro-fessor C. F. Hodge of Worcester, natur-alist and author; T. Gilbert Pearson of New York edit. New York city, secretary of the National Association of Audubon Societies, and a host of others of fame as ornithologists, not forgetting a number of women bird lovers whose names had equal prominence on the programme.

Most of the papers were either earnest discussions of scientific topics or of some phase of weifare work for birde. Job spoke of the propagation and restoration of American wild fowl. Dr. Field described and Illustrated the present status of the heath hen. Chapman pictured his investigations into the bird life of Colombia, South America. Bent and Dr. Charles W. Townsend of Boston gave notes on Labrador and the birds found in their explorations there. Forbush described and pictured his recent investigations into the condition of the bhololink in the South. The Okelinokee Swamp in southern Georgia had been bloolingically investigated, and the investigators told about it, with maps and lanterns sildes, Pearson described the present breeding range of the much slaughtered white egrets of the United States. And so it went. The Western Hemisphere has been pretty well investigated by these scientists, so far as its bird life is concerned, during the past year, and the yput the results of their investigations to the critical tests of ecruity, and discussion by their brother scienting and the prother scientific and the p

Boston Evening Transcript, nor. 16, 1912.

Of equal, perhaps even greater, interest to laymen were other papers on simpler phases of the bird question, such as "Queer Nesting Sites of the House Wren," "The Nest Life of the Sparrow Hawk," and especially one on "Concealing Action of the Bittern," which savors as much of house pocus as if does of science, and which I am minded to relate, though I cannot put it as well as did the observer, Porfessor Walter Barrows of East Lansing, Mich.

The narrator told of a bittern, Botaurus

lentiginosus, which lighted in the shallows of a reed-margined pond of small area and forthwith and on the spot disappeared. Though he and another man made a com plete circuit of the little pond, looking with all their eyes for this two-foot long bird which had been seen to alight in it, the bittern they could not see. As they were about to give up the search he suddenly materialized in just about the spot where he had been seen to alight but where they had previously looked for him in vain. The explanation of this, as given by the narra-tor, was the habit of the bittern, well known to ornithologists, of, when alighting in a new place where enemies might lurk suddenly turning itself into the semblance of a gray, upright stake. The bird stands stiffly erect, its feathers drawn in to its body, its bill pointing to the sky, and its gray-brown plumage harmonizing perfectly with any reeds or stumps among which it has alighted. That is, the bittern "froze," as they say, and was not to be distinguished among the reeds which it somewhat resembled.

But that's not the story. If it were it probably would not have been told. After they saw the bittern be continued stiff and erect, and, while the water was calm and unruffled, aftill motionless. But when the wind blew and swayed the reeds dish bittern, with a finesse quite astonishing, swayed with the reeds, making highest an impersonal part of their lifelessness, which almost had the effect of effacing him from the view of the watchers even while their eyes were fixed on him. To the mere layman in ornithological matters this story brought a brief breathless silence, but another observer hastened to confirm it with testimony of having seen another bittern in a far distant State do something much like this one of Michigan and the tension was relieved. There was some discussion as relieved. There was some discussion as not swayed by the same wind that swayed the reeds, but it was finally decided that he acted with intentional cumning to promote his concealment.

Another rather interesting adventure in local bird observation told how the antice of a moving picture concern brought flocks of hitherto unheard of shore birds to a York State pond some hundreds of raises inland—that is, shore birds hitherto unheard of in that locality. The blograph people reheared a tragedy. They had the lover and the lady drowned in the lake. Then they had the frantic search for the bodies, the drahning of the lake and the finding of stuffed dummies in the mud of the bottom. All very realistic and amusing for the laded frequenters of the moving picture theatres, without doubt. But see how little we know what is going on in the air over our heads while we rehearse tragedies and drain hitherto undrained prods. The mud of the pond bottom was no sooner bare than flocks of shore birds began to drop in from the sky. There were knots, red-backed sandpipers, sills and sanderlings, and turnstones, and the bird lovers of the neighborhood had a treat that they would have had to so at least

three hundred miles, to Coney Island or the Jersey coast for, if there had been no moving picture concern. As Mrs. Wiggs used to say, "We never know which way happiness is coming."

The paper on the work of the Bird Banding Association brought out some interesting stories, too. This association undertakes to put on the legs of as many birds

as possible a light, aluminum band, Jessine a number and a request to report to The Auke which is the owner. It report to the Auke which is the owner to report to the first secaptured. Usually, birds that are just maturing are taken from the nest before they can by and thus bended. The bird is their returned to the nest and forgets the band, but for all its life carries with it an identification mark which is recorded in the annais of the association. This work has been carried on in a large way on the continent of Europe for many years, and has greatly extended the knowledge of the migration routes of various birds. Last year 11.400 of these bands were put on birds in England alone. In America, since the work was begun, only 200 have been used, but the association is planning to greatly increase this. Elight hundred birds were banded last year.

As yet no results of great importance have resulted from this work, but some interesting things have happened. Briest Harold Baynes, general manager of the famous Meriden Bird Clup of Meriden, N. H., two years ago one June day found a chimney swift in his front room, the bird having gone from its nest down chimney instead of up. He promptly handed it and sent it up chimney again. A year and eight days afterward he again from a chimney swift fluttering about the same room. He caught it and examined the less. There, sure enough, was the aluminum band with the number on it. 6825, proving beyond a doubt that this was the same bird that had visited him a little over a year before. Enough records of this sort will prove beyond a peradventure what we already think; we know, that the same good old chimney swifts come back to the same good old chimneys to uest year after year. So, eventually it will be proved—or disproved—of other birds by this banding

One great work of the A. O. U. is the Check-List of North American birds, in which it takes care to correctly scientifically name every species of hird that is found, even casually, within the limits of the continent. It gives as well the common ammes and the range of each species and sub-species and is the last authority on such matters.

These are a few of the multiple activities of the A. O. U. It scientifically amines the bird life of the continent each year, classifying, tabulating and naming. It studies the migrating, nesting and all other habits of the birds of the continent, bands them, photographs them, makes millions of field notes and publishes the more imperiant of them, and works patiently for scientific and friendly knowledge of bying the different part of the first part of the continent of the cont

Cambridge is a particularly fitting place for a big meet of the American Ornitholo-gists' Union, for the club out of which the union grew was born there more than a generation ago. The Nuttail Ornithological Club originally consisted of a few bird lovers, enthusiasts of Cambridge and Boston, many of whose names have since become many of whose hances have small state became familiar the world over to all who pay even casual attention to American ornithology. It began as an informal affair, with an active membership of less than twenty, but it soon became organized, and as time passed began publishing the Quarterly Bulletin of the Nuttall Club, the influence of which in matters ornithological became great throughout the country, and indeed far beyond its borders. The corresponding members of the club included all

American ornithologists of note, and through their cooperation the club was able to concentrate the ornithological interests of the country, the Quarterly proving not only a strong bond of union, but also an indispensable medium of communication.

That was way back in the dark ages of the eighteen hundred and seventies and the early eighties. In September of 1883 a meeting of the ornithologists of the country was held in New York and amid much enthusiasm the little but powerful Nuttall Club of Cambridge was merged in the larger and still more influential American Ornithologists' Union, a national, indeed an international, organization to which it transferred its prestige and its quarterly journal, which thus became The Auk. With the visor of youth the union went at its work immediately and mapped out extensive programmes for various committees which took them up enthusiastically. As it had organized and unified the ornithological interests of the country, so it set about organizing and unifying the work of those interests. For a dozen years the bird students of the country had been actively and enthusiastically at work, studying birds, finding and naming new species, writing and publishing books on ornithology, with a resulting great increase in knowledge and nomenclature and a somewhat dire confusion of both. Scientific nomenclature, which is supposed to be a crystallization of knowledge into definite and accepted form, was instead a sad mixture of incoherences. There were two check lists of North American birds of equal prominence and of embarrassing divergence of statement, and it was felt that the best authorities should get together and reduce this chaotic condition to a more perfect order. Indeed, it was on this nucleus more than any other that the union itself crystallized.

The work assigned the committee which had this in charge required the consideration not only of what birds should be admitted as North American, but their sequence and relative rank-scientifically, of course-and their correct scientific names, rules of nomenclature as well as status and relations of groups. It was a task of im-mense labor and one in which personal interests and bias had often to be sacrificed for the rightness of the final outcome. In two years and six months there was before the public an octavo volume of about 400 pages, containing first a code of nomenclature and second a check-list of North American birds, including their range, and the authorities for the names adopted. This list was immediately accepted as the standard authority with all American writers on birds. With revision and addition it has stood ever since and is considered the final authority the world over. Such good work for science grew so soon out of the little Nuttall Club, which

was born in Cambridge.

Many other activities were begun at that original meeting which have since borne good results. A committee on avian anatomy was appointed and that good work is still done by the union in avian anatomy was proven at the recent meeting when Mr. Hubert Lyman Clark of Cambridge told in clear-cut phraseology, which was equally as clear to the novice as to the scientist, how he had examined the anatomical structure of the South American bird known to American ornithologists as the Panama thrush-warbler and to the English as the rose-breasted wren, and proved that the bird was neither a thrush, warbler nor wren, but must by rights be considered as nearest the tanagers.

There was a committee on the status of the European house sparrow, which has since presented a thorough report, an important publication which has since served

as a guide to legislation and a useful exposition of a grievous pest.

The committee on the geographical distribution of North American birds which was appointed at this first meeting was subsequently merged with the committee on the migration of North American birds under the chairmanship of the famous Dr. C. Hart Merriam. enormous work was immediately taken up by this committee, its division of economic ornithology carrying on extensive researches into the food of our wild birds. This work was so great and of such obvious national value that it was taken over by the National Government and has since become the Biological Survey, an important branch of the United States Department of Agriculture.

At the second congress of the Union a committee was appointed on protection of North American birds, a work humanitarian and utilitarian rather than scientific. This committee undertook to enlighten public opinion in respect to the extent of the destruction of birds, especially for millinery purposes, and the lamentable results. This great work for the general good was immediately taken up and has been carried forward ever since, though like that of the division of economic ornithology it has since passed from the direct control of the A. O. U. This work has since spread throughout the country in the Audubon Societies which are now doing such splendid welfare work for birds in almost every State in the Union. Thus besides the present strong and vigorous A. O. U. child of the original Nuttall Club of Cambridge, we have these mighty grandchildren, the Biological Survey, and the Audubon Societies. The study of birds in this country from a scientific, utilitarian and æsthetic point of view, now so universal the continent over, had its first conscious origin in the little Nuttall Club, which was to later merge in the organization whose thirtleth annual congress has just closed at Cambridge. It has been a great power for good already and its work, especially the branches pertaining to the utilitarian and humanitarian side of the movement, is still only just begun.

